# International Competitive Bidding of medical equipment in low and middle-income countries

Need for reform?

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# Abstract

In the health care sector in developing countries, procurement is an instrument of governments to purchase medical goods and services. Usually, donor organizations as the World Bank or the European Union support developing countries by means of loans and grants to allow them to purchase medical goods and services. One commonly used form in the purchase of medical equipment is International Competitive Bidding (ICB). In developing countries, the public procurement sector presents an important market, implying that any improvement in the procurement system can have economic effects. In theory, ICB can have profound effects like efficiency, the promotion of competition and the reduction of corruption. Less attention is devoted to the obstacles and drawbacks of ICB procedures of medical goods and supplies in developing countries; transaction costs and bureaucracy are the major obstacles as identified by academic literature. Moreover, literature on official development assistance has not proved that the way in which development aid is organized over the last 50 years has been done in an efficient manner.

Based on the literature on procurement in developing countries and on examples derived from real life cases, this thesis proposes a range of improvements that need to be considered for improving the effectiveness of current ICB procedures of medical equipment in developing countries. It sheds new lights on procurement practises in developing countries by providing additional practical drawbacks of current ICB procedures and consequently presenting ways of improving current ICB procedures of medical equipment.

This thesis argues that there is a clear need to reform current ICB procedures of medical goods and supplies. The findings of this study indicate that current procedures have by no means the intended results as described by literature. The ICB procedures should be adapted to the practical context and situation in the developing country. Consequently, this thesis proposes a number of recommendations to improve current ICB procedures of medical equipment in developing countries. First of all, it pledges for a specific procurement procedure focused on the supply of medical equipment solely. It should be reckoned that the delivery of sophisticated medical equipment via ICB procedures to developing countries requires a sector specific approach including more institutional support and control of the financing (donor) organizations, a narrow focus on sustainability (including a mandatory maintenance, training and pre-installation component), an investment in quality and technical expertise and a clarification of evaluation criteria. Finally, it suggests that in these ICB

procedures, responsibilities of involved actors should be clarified and a project owner must be assigned.

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# List of Abbreviations

| | |
|---|---|
| CT | Computer Tomography |
| EU | European Union |
| EC | European Commission |
| EC | European Community |
| EIB | European Investment Bank |
| ICB | International Competitive Bidding |
| LIB | Limited International Bidding |
| MDG | Millennium Development Goal |
| MoH | Ministry of Health |
| ODA | Official Development Aid |
| OECD | Organisation for Economic Co-operation and Development |
| SWOT | Strengths, Weaknesses, Opportunities and Threats |
| WB | World Bank |

# Chapter 1. Introduction

## 1.1 Introduction

Being healthy and staying healthy is inarguably the most important aspect in our lives and one of the major concerns of the developing world. People want to stay healthy but also when we are ill or injured, we want to become healthy again as soon as possible. However, in developing countries the health situation is extremely poor. One major concern in developing countries is the tremendous lack of medical equipment such as ct scans, x-rays, incubators, etc. To improve upon this situation, lending or donor institutions such as the World Bank and the European Union are using international accepted policies to deliver necessary medical equipment and supplies in a most efficient and effective way. In fact, public procurement of health care services is emerging as a common policy issue in a number of developing countries to deliver the required goods and services. Effective procurement of goods and services provides a steady and adequate supply of essential health commodities and builds the capacity of health care providers. Procurement has the potential to overcome numerous challenges that health workers face in scaling up responses to major epidemics. Appropriate procurement practises may promote more equitable access to services and medicines. This also helps health programmes and agencies to be more accountable to international and domestic funding authorities (GTZ, 2007).

The public procurement sector is often the largest domestic market in less developed countries and can account for up to 50%-70% of total imports. This implies that any improvements in the public procurement system can have a direct and beneficial effect on the overall economic situation of a country. Improvements in this respect are clearly needed Wittig (Year Unknown) argues.

Some experience in low- and middle income countries suggests that the most applied form of procurement, international competitive bidding (ICB), can be effective in improving service delivery but there is also concern that public procurement will have high transaction costs, administration costs and other disadvantages. Authors have even argued that very little evidence is available on whether competitive contracting with the private sector is likely to improve the efficiency of service provision and moreover under which conditions delivery of services through contracts in the private sector is likely to be preferable to direct provision by the public sector (Mills, 1998). Despite the potential benefits of contracting with the private sector for delivery of publicly-financed health services, its effectiveness and efficiency has rarely been evaluated (Loevinsohn, Year Unknown). Although there is considerable

agreement on ends (efficient, non-corrupt, and transparent public procurement systems), little information is available how and if procurement methods can be effective and can be improved Evenett & Hoekman (2005) argue.

The efficiency of the procurement process not only depends upon the bidding model adopted but also on how the tender is designed and carried out. The design of the precise features of the competitive bidding process can also have a strong influence on the efficiency of the outcome (OECD, 2007). A survey from the OECD has shown that developing countries have considerable problems with donor specific public procurement procedures. Of the responses, 50% considered donor procurement as undermining the effectiveness of donor aid when asked which donor practices, in the current state of affairs, most undermine the effectiveness of these aid strategies (OECD, 2003).

## 1.2 Rationale and objectives of this study

This thesis will address the following topics:

1. The purpose of this study is to investigate and explore how and under which conditions the competitive bidding of medical supplies in developing countries can be optimized. The success of public procurement in developing countries must necessarily be assessed from a contextual perspective. This thesis looks at the challenges faced in managing the procurement and supply of diagnostic equipment and other medical products to prevent, diagnose and treat diseases. Hereby, it focuses on ICB practises in low -and middle income countries and describes how this procurement method of medical equipment can further be improved.

2. The aim of this paper is to further explore procurement practises of medical supplies in developing countries. The main contribution to existing literature intended by this thesis is to supplement the existing literature on ICB in developing countries with concrete insights from practise. The literature is intended to be further extended with the analysis of interviews with supplying companies, consultants and experiences from practical situations. Hereby, it identifies weaknesses and obstacles and consequently focuses on potential improvements of current ICB procedures concerning the supply of medical equipment in developing countries via World Bank and/or European Union tenders. Understanding these practises will give the Western world an idea of how

procurement can indeed in real life help the developing world. This study is expected to create transparency in a complex subject from which lessons could be learned for ICB processes of medical equipment in developing countries.

In short, this research explores the combination of international literature and interviews with stakeholders involved in international procurement of medical equipment in order to see how the ICB process of medical supplies should be optimized in the developing world. The following problem statement is formulated in this study:

*How should the international competitive bidding process of health care equipment be optimized in developing countries?*

## 1.3 Research questions

In order to answer this problem statement, the following related research questions are formulated, which form the basis for this study. The questions will be answered first from a theoretical perspective, the end goal however is to also answer these questions from a practical developing country perspective.

Firstly, basic questions will be answered:
*RQ 1: What is public procurement?*
*RQ 2: Which procurement methods can be distinguished and what are the differences between different procurement methods?*

The following questions will deal with ICB of medical supplies in developing countries:
*RQ 3: How is a competitive bidding process designed?*
*RQ 4: What are the major stakeholders in a competitive bidding process of medical supplies in developing countries and what are their goals?*
*RQ 5: What is the rationale and background behind ICB in developing countries and what are ICB procedures' strengths and weaknesses?*
Then, this research question will deal with a general discussion on the effectiveness of official development assistance:
*RQ 6: What are the results of foreign aid? Has aid lead to development?*

And; conclusively, the following question leading to final recommendations, and hence answering the problem statement, will be answered:
*RQ 7: What are the weaknesses of an ICB process of medical equipment from a practical point of view?*

## 1.4 Key Concepts

In this study various concepts are applied. The following concepts can be distinguished as the most significant ones.

1. *Public Procurement*

This thesis sees public procurement systems as getting the right item at the right time, and at the right price, to support government actions.
A more in-depth discussion about international procurement and its features can be found in chapter 2.

2. *International Competitive Bidding (ICB)*

International competitive bidding is the most internationally accepted and used form of public procurement to purchase medical equipment and supplies in developing countries. A more detailed discussion on ICB can be found in chapter 2.

3. *Developing countries*

The United Nations defines developing countries as follows:

*"Low- and middle-income countries in which most people have a lower standard of living with access to fewer goods and services than do most people in high-income countries."*
(http://unstats.un.org/unsd/)
The term "developing country" often refers mainly to countries with low levels of economic development, but this is usually closely associated with social development in terms of education, health care, life expectancy, etc (http://en.wikipedia.org).
A developing country is characterized by a relatively low standard of living, an underdeveloped economy and a relatively low Human Development Index.

There are currently about 125 developing countries with populations over 1 million; in 1998, their total population was more than 5.0 billion. In this thesis, when referred to as third world, the developing countries are meant.

4. *Official Development Aid (ODA)*

Vasques (1998) describes official development aid as follows:

> *'aid flows from bilateral or multilateral agencies that aid flows from official bilateral or multilateral agencies that aim to promote economic development and welfare in poor countries and that contain at least a 25 percent grant component'*
>
> *Source: Vasquez, (1998) page 276*

For a further discussion on development aid and its effectiveness, a more profound analysis can be found in chapter 4.

## 1.5 Research methodology

This paper draws on evidence from interviews and experiences from companies supplying medical equipment via ICB procedures. Also, a few experienced consultants and a technician operating in this sector are interviewed. Finally, the experience of the author in this sector will be used to explore the subject in practise.

## 1.6 Structural outline of the thesis

The structural outline of the thesis is as follows. The current chapter is the introduction chapter in which the topic is introduced. The second chapter deals with creating a theoretical context for international procurement in which procurement is narrower defined and in which major procurement methods are explained. Chapter three deals with the rationale, strengths and weaknesses of ICB in developing countries. Having discussed potential strengths and weaknesses, chapter 4 will discuss the actual results of aid effectiveness and the ongoing debate in academic literature. The following chapter describes the research methodology as applied in this thesis and the next chapter six presents the results and the lessons that could be derived from the research. Chapter seven concludes with answering the problem statement and reflects on the subject. This chapter also provides recommendations for procurement of medical supplies in developing countries. The final chapter will review the implications for research of this thesis, its limitations and recommendations for further research.

# Chapter 2. Public Procurement explored

## 2.1 Introduction

International competitive bidding, direct negotiation and tenders are all commonly used terms relating in some way to public procurement. It appears that these terms are often used abusively. In order to get a better understanding of what exactly constitutes public procurement, this section will provide an overview of the literature on public procurement and most commonly used terms.

## 2.2 Public Procurement: an overview

An effective assessment of public procurement of medical supplies and services in developing countries needs an operationalized definition of public procurement. Public procurement refers to the government's activity of purchasing the goods and services which it needs to carry out its functions; ranging from construction to street cleaning and from vehicle maintenance to information technology services (Arrowsmith, 1998). In most countries the government is the largest consumer in the market and has to supply a variety of goods, ranging from pens to data management. Public procurement is one of the ways in which these needs can be met. Other ways include, for example, setting up state-owned factories and offices (Martin, 1996).

Public procurement systems are the bridge between public requirements (education, hospitals, defence needs, etc.) and private-sector providers Wittig (Year Unknown) reckons. Governments provide goods and services to meet the needs of society's citizens. These goods and services can be obtained via public sector organizations or from sources in the private sector via domestic or international suppliers. Unlike private sector procurement, public procurement can be considered as a business process within a political system with distinct considerations of integrity, accountability, national interest and effectiveness. The main reason for regulating public sector and procurement is to bring public markets in parallel to the operation of private markets whereas the public market represents an economic quotation where the demand side is represented by the public sector and whereas the supply side covers the industry (Bovis, 2006).

This thesis particularly focuses on the international procurement of medical equipment and services. Equipment procurement requires governments to make choices involving what to buy (choice of project); who to buy from (choice of contractor); how to buy (choice of

contract type); and when to buy (start of project; competing prototypes; at end of development; or competition for production work) Hartley (2002).

*Public procurement goes beyond purchasing only*

The public procurement system is influenced by the market, internal environment, legal environment, political environment, and socio-economic and other environment (Kai, 2001). The internal environment includes officials and organizations in the government concerned with public procurement, and various actors and sub-agencies within a department or executive agency. Secondly, market conditions influence whether or not socio-economic objectives of procurement are accomplished and whether the government can buy the required goods and services at the quality and costs the governments want. Market conditions have a vast influence over the public procurement system's effort to maximize competition. Worth mentioning is that these market conditions tend to be more favourable in industrialized countries, while they may be less favourable in developing countries.

Apart from public procurement regulations and rules, the legal environment refers to a the legal framework that applies to normal business activities including for example finance and contracts. Especially contract requirements are important in public procurement and are governed under the same contract law.

Fourthly, organizations, companies trade associations and interest groups are actively involved in all aspects of the public procurement system. All these groups may have different objectives and may lobby for certain procurement policies. Public procurement can also be seen as a politically sensitive activity in developing and developed countries because it involves significant amounts of public money in various sectors of the economy (Schapper et al., 2006).

Finally, social, economic, and other environment forces can be distinguished. Due to the level of public spending involved and the sectors in which it takes place, public contracting decisions have unquestionable effects on the economy (Arrowsmith; Martin). Public contracts represent an area where political, economic and legal aspects converge. To illustrate the economic importance of public procurement a study was done by the OECD which evaluated procurement practises of 106 developing countries (Evenett & Hoekman, 2005). It was found that government purchases of goods and services in these economies accounted for approximately 5.1 percent of their combined national outputs, compared to OECD members states of 7.9 percent. The 106 developing countries' procurement markets amounted to only 13.9 percent of the total worldwide procurement spending in 1998.

Public procurement is continuously under other external pressures such as an environment protection movement and foreign policy.

*Ideological views on procurement*

Scholars have stressed that viewing public procurement solely as a government activity of purchasing goods and services is not sufficient.

Martin considers public procurement as the way in which public authorities acquire the goods and services in the market which they need to perform their duties. However, seeing public procurement primarily as contracting authorities acting as mere private consumers is far too simplistic. In contrast with private consumers, public authorities are constrained by the need to perform in the most efficient way the public duties imposed on them. This means that public authorities are obliged to represent the public interest and are responsible to achieve and promote social welfare.

In general, two ideologies concerning public procurement have prevailed (Martin, 1996);

1. *'Free market orientation'*

   Public procurement is primarily an economic activity of public authorities, emphasises the need to exclusively apply commercial criteria when awarding the contract (Edquist & Hommen, 2000) and;

2. *'Interventionist orientation'*

   Public procurement can be regarded as an instrument to achieve economic and social objectives wider than only economic efficiency and may be called the 'instrumental or redistributory use' approach.

The first approach embraces the merit of efficiency and the presence of competition, mainly price competition which ought to create optimal conditions for welfare gains (Bovis, 2006).

The second approach can be considered as a wider approach than mere efficiency in the use of public money. Also Reich (1999) reckons that public purchasing goes beyond the effect of transferring the required item from the supplier to the government, stating that government purchasing has far reaching economic and social consequences. Worth mentioning is that the first free market approach has been the dominant influence in the development of the EU rules regarding public procurement (Equist, Hommen & Tsipouri, 2000). Maximization of competition in order to reduce costs and guarantee fair and equitable use of taxes prevails over the second approach.

In sum, public procurement goes beyond government purchasing only. Public procurement may be not seen as an objective in itself, but as an instrument to achieve wider social or economic policy objectives. Taking this view into consideration, public procurement effectiveness may therefore be limited, unless accompanied by the existence of other instruments and measures. An active public procurement policy does certainly not resolve health related problems but may however contribute to improvement of health by using scarce monetary resources in an efficient way.

## 2.3 Description of procurement practises

Public procurement can take place through different types of tendering. Literature on bidding and procurement identify a number of bidding models which broadly can be classified into open-bidding models and closed-bidding models.

Arrowsmith & Davies (1998) distinguish the following main types of formal competition for tenders:

1. open (or unlimited) procurement
2. selective procurement (restricted to pre-selected categories of suppliers invited to bid) and framework agreements
3. limited (or negotiated) procurement, including individual, sole-source, single-source or direct tendering.

The following paragraphs will focus on the major procurement practises including open procurement (international competitive bidding) and direct negotiation. With regard to procurement in developing countries, the overwhelming majority of procurement by means of donor aid occurs via the World Bank and the European Union. These are the most important international procurement organisations. In this thesis, focus will lie on the procurement practises of these two institutions. Generally, it can be said that the objectives and goals of procurement are the same for both institutions. However, there are some minor differences concerning the procurement process. The major procurement methods of the EU and the World Bank will be described in the next paragraphs. Major differences between the procurement practises of the two institutions are illustrated in table 2.1 below.

Table 2.1 Major differences procurement World Bank and EU

| **World Bank** | **EU** |
|---|---|
| • Loans | • Grants |
| • Supplying companies can buy products | • Supplying companies must spent within the |

| | | |
|---|---|---|
| | anywhere except Cuba, North Korea. | EU |

Source: worldbank.org & eu.int, (2008)

*2.3.1 Open procurement: ICB*

International competitive bidding (ICB) and international procurement are often used interchangeable. In international procurement, ICB is mostly described as a form and often the appropriate method for a specific procurement (World Bank, 2007). The World Bank and the EU normally require its recipient countries (either in the form of a loan or grant) to obtain goods and works on the basis of international competitive bidding. In some special circumstances, however, other methods of procurement are deemed more economical and efficient.

ICB refers to a formal tendering procedure in which the contract is opened to international competition and awarded through a formal tendering procedure, where a clear specification is set and bids are submitted to a common deadline set (Tucker, 1998).

In ICB, suppliers of medical equipment are invited by governments to bid on contracts to deliver the required equipment. ICB is regarded as an 'open procedure' whereby all interested companies may submit their tenders. Often, in international terms, these procedures are referred to 'open tendering'. Tendering proceedings is used in most cases for the procurement of goods. The procedures for tendering are designed to maximize the advantages of competition, transparency and fairness in the procurement process (Hunja, 1998).

The objective of ICB, as described by the World Bank guidelines (2007), is to provide all qualified prospective bidders with timely and adequate notification of its requirements and an equal opportunity to bid for the required goods and works. It is aimed at enabling as many potential bidders as possible to take part in the procurement process.

In general, firms from all countries are permitted to offer medical equipment and services under donor-aid projects; either financed by the European Union or World Bank projects. The only requirement for participation shall be limited to those that are essential to ensure the firm's capability to fulfil the contract in question. In this way, ICB ensures that recipient countries obtain value for money and to give all potential exporters an equal chance to enter bids in such a way that the importer can compare them objectively and determine the optimal offer (OECD, 2007).

*2.3.2 Direct negotiation & selective procurement*

Where ICB is not the most appropriate method of procurement, other methods of procurement may be used. Direct negotiation allows governments to consult candidates of their choice and negotiate the terms of the contract with one or more. These methods are commonly referred to as 'restricted procedures'. The major difference between the open procedure and this restricted procedure is that in restricted procedures only those suppliers that are invited may submit their tenders. The rest of the procedure is quite similar to the open procedure concerning the nature of the tendering process: clear and comprehensive tender documents, and fair and transparent tendering, evaluation.

Not many structured rules exist how direct negotiation should be carried out. After negotiations with one, or a number of bidders, the successful bidder will be chosen on the basis of a 'best and final offer'. This open-ended method may therefore be considered as rather fraught sensitive with the opportunity to abuse (Hunja, 1998). Direct negotiation as a method of procurement in developing countries is rare and not often used in EU or World Bank financed projects. However, direct negotiation is considered as the appropriated procurement method when the value of goods or services is low and when the goods or services are standardized in nature. It may also be used in exceptional cases when, for example, there has been an unsatisfactory response from suppliers in the ICB process. According to the EU and World Bank, direct negotiation may be selected as the appropriate procurement method when the total value of the tender is not exceeding a certain threshold, valued in Euros. In case that the total value of the tender exceeds the threshold value, direct negotiation can not be selected as a tool to purchase goods or services and ICB must be applied. Hence, in practise, this implies that direct negotiation can only be used in small projects with little economic value.

Summarizing, direct negotiation involves dealing with a particular supplier or a limited number of suppliers and is allowed in any one of the following situations (World Bank, 2006):

a) An existing contract for goods or works, awarded in accordance with procedures acceptable to the WB, may be extended for additional goods or works of a similar nature. The WB shall be satisfied in such cases that no advantage could be obtained by further competition and that the prices on the extended contract are reasonable. Provisions for such an extension, if considered likely in advance, shall be included in the original contract.

(b) Standardization of equipment or spare parts, to be compatible with existing equipment, may justify additional purchases from the original supplier. For such purchases to be justified, the original equipment shall be suitable, the number of new items shall generally be less than the existing number, the price shall be reasonable, and the advantages of another make or source of equipment shall have been considered and rejected on grounds acceptable to the WB.

(c) The required equipment is proprietary and obtainable only from one source.

(d) The contractor responsible for a process design requires the purchase of critical items from a particular supplier as a condition of a performance guarantee.

(e) In exceptional cases, such as in response to natural disasters.

Often, internationally, direct negotiation is also referred to as Limited International Bidding (LIB), selective tendering, international shopping, or single tendering (EIB, 2004).

### *2.3.2 Other methods*

Some other methods include National Competitive Bidding, any method that simplifies an ICB procedure allowing for a shorter time between the opening of the bid and the submission of the bid by the supplier, or two-stage bidding in case of turnkey contracts (Tucker, 1998). Once again, in international procurement, ICB is the preferred method. Discussing the other methods in detail goes beyond the scope of this thesis as focus lies on ICB procedures.

## 2.4 The process of ICB

Generally, three stages can be identified in the process of ICB from its initiation to the final delivery of the medical equipment. The first stage is issued by the recipient country, the second stage is the bid submitted by the bidder and the final third stage includes the contract documents issued by both the employer and the tender document submitted by the bidder (World Bank, 2008).

### *2.4.1 Stage I: Preparatory Phase*

The first stage is the procurement notice of the tender which is set up by the issuer of the tender being the recipient country. The publication can only be legally done after approval of the financing institution. Often, the set up of the tender is done with the help of (World Bank or EU) consultants, who are also selected after an ICB procedure. The tender document shall be available to potential bidders at the place indicated in the procurement notice. Timely notification of bidding opportunities is essential in competitive bidding. For projects that include ICB, the recipient is required to prepare and submit to the WB a draft general procurement notice (World Bank, 2006). The procurement notice is a legal and obligatory invitation to bids: without publication, the procurement process cannot be started. Usually, the tender will be notified on the website of the financing institution and with a hard copy in the leading local newspapers in the recipient country. The notification of the tender (also called, 'call for tenders' or 'invitation to tender') refers to basics of the tender and includes the general conditions of the contract: the location and time frame of the project, requirements for qualifying bidders, deadlines for submission of applications for bidding, information on equipment to be procured, a contact point for detailed inquiries, and other information. Any potential bidder may request a tender document after paying a reasonable sum of money (between 100$-200$) to avoid a free distribution of the document in case of World Bank projects. In case if EU funded projects, the procurement notice can be downloaded on the internet without additional costs. The tender document includes instructions to the bidders, evaluation criteria, supply requirements and general conditions of the contract.

The recipient country invites interested eligible firms to present their sealed bids for the supply of medical equipment. Mostly, the Ministry of Health (MoH) is the executing agency for the recipient government. A procurement notice of a health care reform project in Belize for the supply of medical equipment and furniture illustrates the eligibility of supplying companies. Firms shall usually be eligible for procurement if (Government of Belize, 2008):

(a) in the case of a body corporate, it is legally incorporated or otherwise organized in - and has its principal place of business in - an eligible country and is more than 50 per cent beneficially owned by citizen(s) and/or bona fide resident(s) of eligible country(ies) or by body(ies) corporate meeting these requirements;
(b) in the case of unincorporated firms, the persons are citizens or bona fide residents of an eligible country; and;
(c) in all cases, the supplier has no arrangement, and undertakes not to make any arrangements, whereby any substantial part of the net profits or other tangible benefits of the contract will accrue or be paid to a person not a citizen or bona fide resident of an eligible country.

International procurement rules prescribe a time period of 45 days between the publication of the procurement notice and the submission of the tender by the supplier. The aim of this notification process is to give access to the widest possible number of suppliers.
All bids must be accompanied by a security in the sum, the so-called bid bond. This is a form of security offered by a bidder to the party soliciting the bid which guarantees that the bidder will enter into a contract within a specified period of time and will supply the required products. A bid bond can either be a fixed sum of money or a percentage of the expected project value, international rules prescribe 2%.

*2.4.2 Stage II: Bidding Phase*

After receiving this tender document, an interested potential supplier is requested to submit an application and other relevant documentation for confirmation of qualification. Requirements for qualification include previous records of performance in a similar type of project, financial capabilities and securities. The tender must be submitted on a fixed date indicated in the procurement notice. It is expected that bids are opened immediately thereafter in the presence of the bidder's representatives who wish to attend. These bid openings must be conducted in public and any bid submitted after the closing time will not be treated. The bid must include a performance bond to guarantee against the failure of the supplier to meet obligations specified in the contract. If the supplier fails to deliver according to the specifications laid out by the contract, the recipient is guaranteed compensation for any monetary loss.

*2.4.3 Stage III: Contract Phase and Execution Phase*

After the opening, the bids are evaluated by the tender committee. The evaluation consist of two parts; an administrational, technical part and a commercial part.

To start with, bids are evaluated for accuracy, completeness, the presence of securities and whether the bid is compliant with specifications required in the bidding document. This is often very difficult to decide and again, often consultants or technical experts are required to assist in this process. The second part of the evaluation is the commercial evaluation in which price and quality will be taken into account. For transparency reasons, it is not permitted to conduct post-tender evaluations under which bidders are, for example, asked to lower their price. Before the contract is awarded, in case of World Bank tenders, the tenders must be sent to the World Bank for 'no objection'. This implies that the WB needs to evaluate the bid again and give its approval.

After evaluation, the contracts can be awarded. Generally, the contracts are awarded to the cheapest compliant supplier. The final stage is the stage in which contracts are signed with supplying companies. In this final stage, the contract is awarded to the best bidder. Often, a tender consist of several lots and several companies can hence be selected as a winner. The tender commissioning entity publishes the results of the bidding, including the name of the winner(s) and the amount of the contract. In this stage, a performance bond is required which guaranties for the performance of the contract.

Finally, bidding companies have the right to challenge the procurement procedures by handing in a complaint about the procedure. The tender committee can then decide upon a so-called re-tender in which suppliers are requested to make a re-offer of certain tender parts (lots).

Generally, the prescribed time span between the submission of the bid and the contract award is 90 or 120 days. However, it often occurs that the tender committee needs more time to evaluate the bids. In that case, the period can be extended.

Table 2.2 summarizes the stages in the ICB procedure of the WB in the form of a flow chart including all required documents per stage.

Table 2.2 Single Stage Bidding Procedure Flowchart

| **I. Bidding Documents**<br>Issued by Employer | |
|---|---|
| Invitation for Bids<br>Instructions to Bidders | Technical Specifications and Drawings<br>Sample Forms and Procedures |

| | |
|---|---|
| Bid Data Sheet<br>General Conditions of Contract<br>Special Conditions of Contract | Eligibility for the Provision of Goods, Works and Services in Bank-Financed Procurement |
| **II. The Bid**<br>Submitted by Bidder | |
| Cover Letter<br>Bid Form<br>Price Schedules<br>Attachments:<br>1. Bid Security<br>2. Power of Attorney | 3. Bidder's Eligibility (Joint Venture, if any)<br>4. Eligibility of Facilities<br>5. Subcontractors proposed by Bidder (if any)<br>6. Deviations (if any)<br>7. Alternative Bids (if any)<br>Technical Specifications and Drawings from the Bidder (if called for) |
| **III. Contract Documents**<br>Issued by Employer & Submitted by Bidder | |
| Notification of Award<br>Bid Form<br>Price Schedules<br>General Conditions of Contract<br>Special Conditions of Contract<br>Contract Agreement and Appendices<br>1. Terms and Procedures of Payment<br>2. Price Adjustment (if applicable)<br>3. Insurance Requirement | 4. Time Schedule<br>5. List of Subcontractors<br>6. Scope of Works and Supply by Employer<br>7. List of Documents for Approval/Review<br>8. Functional Guarantees<br>Forms and Procedures<br>Technical Specifications & Drawings<br>Any other documents agreed as forming a part of the Contract |

*Source: World Bank, (2008)*

## 2.5 Stakeholders in ICB medical equipment developing countries

*Consultants*

The EU and the World Bank award many consultancy contracts in their projects. At the beginning of a project, consultancies are more frequent than later on (Tucker, 1998). Generally, consultants are involved in ICB procedures in three ways. First of all, in the design of the tender document. In order to make a proper assessment of the needs of the recipient country; which equipment is needed most urgently in which hospital, which equipment would correspond with the availability of human resources, which level (low-tech, high-tech, etc.) of equipment would be suitable, consultants (sometimes with help of local consultants) are send to the recipients countries to eventually make a comprehensive list (bill of quantity) of the to be supplied equipment. Secondly, often institutions make use of consultants for running the project. Finally, consultants may be used for the evaluation of the bids or the final evaluation of the executed project.

*Financing agencies, Institutions*

It's estimated the 'International Development Market' amounts to approximately US $80 billion annually. The major Multilateral Development Banks include the World Bank, Inter-American Development Bank, Asian Development Bank, European Bank for Reconstruction and Development and African Development Bank. The banks together account for almost CAD $50 billion of the total of $160 billion. Most of the remaining balance is financed by other agencies such as Multilateral Financial Institutions (MFIs) and Bilateral Development Agencies (BDAs) (Team Canada, Year Unknown).

The World Bank has been in the forefront of development financing both in terms of volume and with respect to the formulation of operational policies, including procurement policy. Worth mentioning is that regional development banks and other international financing institutions have adopted procurement directives modelled on those of the World Bank Regional development banks include other lending organisations like the African and the Asian Development Banks. Hence, the direct and indirect influence of the World Banks procurement policies is truly vast.

Finally, various United Nations Institutions operate on the market mostly funding small projects of little value. Table 2.3 illustrates the institutions operating in the 'development market' and their primary funding. The most important difference is that the World Bank finances it projects via loans and the European Commission and bilateral agencies mostly via grants.

Table 2.3 Key Multilateral and Bilateral Agencies

| **Institution** | **Primary Funding** |
|---|---|
| *Multilateral Development Banks* | |
| World Bank<br>African Development Bank<br>Asian Development Bank<br>Inter-American Development Bank<br>Caribbean Development Bank | Mostly interest bearing loans |
| *Other multilateral Institutions* | |
| European Commission<br>- EIB<br>- EuropeAid | Modalities include interest-bearing loans and mostly non-reimbursable grants. These agencies also occasionally co-finance projects with MDB's such as the World Bank and, increasingly, via general and sector-wide budget support to governments. |
| Islamic Development Bank | |
| *Bilateral Agencies* | |
| All countries development cooperation's and agencies | Majority in the form of non-reimbursable grants, some provide loans |

Source: Team Canada Publication, (Year Unknown)

*Recipients (purchasers)*

Governmental agencies both at the federal and state government levels in pursuit of programmes that would otherwise have competed for the scarce and sometimes expensive long term funds within the local economy. Often, the recipient is represented by a tender committee which carries out the tendering procedure. The recipient is the party signing the final contract with the supplier.

*Suppliers (contractors)*

Suppliers can either be manufactures or their agents producing and supplying the required goods and services. While these would be preferably sourced locally by both the purchasers and invariably the borrowing government, the opportunities are open to all qualified suppliers within any member country of the World Bank.

A form of 'contract' or 'agreement' is essential to bind the behaviour of the supplier and the recipient (England, 2000), the two parties involved in the contractual relationship. In the case of public procurement of medical supplies in developing countries, one party is the government, serving as a principle or purchaser. The term 'contracting authority' normally refers to the state or any other local or regional authority. The major functions of the government purchaser in the contracting arrangement are financing and oversight, with the overall objective of improving health system performance (Liu et al., 2007). The other party in the relationship is the 'provider', 'contractor' and 'supplier'. Bovis (2006) reckons that this means any natural or legal person or public entity, or group of such persons and/or bodies, which offers the works and services on the market. Once this entity has submitted the tender, it must be designated as 'tenderer'.

The contract between the provider and the contractor specifies the range, quantity and quality of services the provider is to deliver during a future time period. Contracts are a vehicle for linking public finance to defined results England reckons. For the purchaser, they can be a powerful mechanism to drive policy implementation whilst leaving the 'hands on' management of services to providers.

*Agents*

Furthermore, many agents or individual third parties, either local or international are in

someway involved in the ICB processes. Often these agents operate on a commission base on behalf of the supplier, implying that the agents are paid once the contract is awarded. It is often not very clear what their roles and responsibilities are.

To summarize, table 2.4 provides an overview of major stakeholders in ICB process regarding medical equipment in developing countries. Responsibilities and tasks of different stakeholders appear to be not always very clear and differ per country/project.

Table 2.4 Stakeholders and involvement in ICB

| Stakeholder | Involvement in ICB |
|---|---|
| Consultants | • Design of the bidding document<br>• Evaluation of tenders<br>• Final evaluation of executed project |
| Institutions (WB, EU) | • (Co)Financing institutions; through either loans (WB) or grants (EU)<br>• Executing and coordinating agencies<br>• Formulation of policies; determine procurement policies<br>• Evaluation of contractors and project performance (in collaboration with consultants) |
| Suppliers | • Supply medical equipment<br>• After-sales service; maintenance, training |
| Recipients (purchasers) | • Determine winner(s) of bidding process (by means of tender committee)<br>• Sign contract with suppliers |
| (Local) agents (on behalf of suppliers) | • Bridge between supplier and recipients<br>• Represent interests suppliers |

## 2.6 Conclusion

This chapter addressed literature concerning public procurement. Public procurement is the purchase of goods or services by the public sector and it generally accounts for a large share of public expenditure in a domestic economy. It can be considered as a key economic activity of governments in both developed and developing countries.

Solely viewing public procurement as an instrument of governments to purchase supplies and services over various sectors would not be comprehensive. Rather, public procurement is a multidisciplinary concept where political, economic and social issues converge and where governments are obliged to keep societal preferences into account. The main objective of

effective procurement is to ensure that the necessary products are available where and when they are needed, in the correct quantities and that they are used properly.

A number of methods can be used to purchase medical equipment and services; open, selective and limited or negotiated procurement. Open procurement, better known as International Competitive Bidding is the mostly applied form aimed at providing open competition leading to best value for money. The process can roughly be divided into three stages; a preparatory phase, a bidding phase and a contract and execution phase. An analysis of the ICB process illustrates the complexity of the procedures. Moreover, it appears that objectives and responsibilities of the different stakeholders involved in the ICB process are not always clear.

# Chapter 3. Public procurement in developing countries

## 3.1 Introduction

The financial impact of procurement is significant, especially in developing countries; it has been estimated at around 25% to 50% of total health care cost. The World Bank in this respect is the largest and major financing institution for health in most developing countries (Verhage et al., 2002). World Bank's procurement guidelines are internationally accepted and widely used by major funding institutions.

The following chapter will provide a general introduction with the rationale and theory behind public procurement in developing countries. Some of the reasons for the increased attention given to public procurement practices in developing countries are discussed in the following paragraph. Then, the analysis will be turned to major obstacles and weaknesses of current procurement practises as identified by literature. Finally, an overview of the identified strengths and weaknesses is provided in the form of a SWOT analysis followed by a conclusion of the chapter.

## 3.2 Background

Procurement policies are important from a development perspective. Reducing poverty and attaining health, education, and other objectives requires getting the most out of the limited funds available for state purchases of goods, services, and infrastructure.

The OECD and the World Bank (2005) even argue that effective and efficient public procurement systems are essential to the achievement of the Millennium Development Goals, (MDGs) whereas the impact of foreign aid is especially affected by procurement performance given the overwhelming proportion of Official Development Assistance (ODA) that is delivered through the public contracting process. The table 3.2 below illustrates the proportion on spending that is executed via procurement systems in a sample of developing countries. Especially in developing countries, the government is the largest purchaser of goods and services. On a world level, public procurement spending is estimated to account for 15% of the world's GDP.

Table 3.1 Procurement as % of total expenditures in selection developing countries

| Country | Procurement as % of total expenditures |
|---|---|
| Global | 12-20% |
| Angola | 58% |
| Azerbaijan | 34% |
| Malawi | 40% |
| Uganda | 70% |

| | |
|---|---|
| Vietnam | 40% |

*Source: OECD & World Bank, (2005)*

As the quote in the right box show, procurement policy is often regarded as a tool to tackle major problems in developing countries. There is a growing interest for procurement in developing countries (Evenett & Hoekman, 2005). Theoretically, procurement in developing countries is expected to be beneficial for the developing country itself. Public procurement may in fact have a more profound impact on developing countries than on developed ones. Inevitable, this leads to the question: what is the rationale behind these procurement policies and what are its benefits and drawbacks? The following paragraphs will deal with these questions.

> *"Transparent procurement procedures can contribute to a more efficient allocation of resources through increased competition, higher quality procurement and budgetary savings for governments and thus for taxpayers. They can also help attract more investment by lowering risk. Objective and transparent procedures can in addition help enhance the efficiency of local suppliers as they compete for public contracts, thereby improving trade prospects by making these suppliers more competitive exporters…. Finally, transparent procurement procedures can help limit bribery and corruption, which are particularly rampant in the procurement field" (OECD 2003, page 3).*

## 3.3 Rationale

A distinction between direct, economic and social impacts of procurement as illustrated in table 3.2. Discussing all impacts in depth will probably deserve another thesis, focus in this study will only lie on direct procurement impacts. Of course, direct impacts of procurement as open competition and efficiency will have its economic effects as greater value for money and more effective use of public funds which will finally also result in social impacts as for example better chance to achieve MDG's.

Table 3.2 Direct, Economic and Social Procurement impacts

| Direct procurement impact | Economic impact | Social impact |
|---|---|---|
| • More competition<br>• More transparency<br>• Greater efficiency<br>• Less corruption<br>• Greater respect for public procurement institutions | • Greater value for money<br>• Budgetary savings<br>• Improved public service delivery<br>• More effective use of public funds<br>• Better co-ordination of public funds<br>• Debt reduction<br>• Stimulus for private sector growth | • Better chance to achieve MDG's<br>• Better chance to achieve other government objectives<br>• Improved reputation for government institutions<br>• Enhanced respect for rule of law<br>• Increased access by local market to government |

| | |
|---|---|
| | contracts<br>• Improvements in social sector services<br>• Better environmental management<br>• Better conflict prevention |

*Source: OECD & World Bank, (2005)*

### *3.3.1 Efficiency and competition*

The primary objective of an effective procurement policy is the promotion of efficiency. Generally, procurement policies are based on using competition to achieve 'best value for money'. Transparent and predictable procurement procedures should improve economic efficiency by promoting competition amongst various supplies; domestic and foreign. Strong competition brings down costs, improves quality and delivery terms and fosters the introduction of innovations (EC, 2004). Open competition implies that contracts are awarded by comparing offers from a certain number of supplying firms in order to establish which one can provide the most favourable terms for delivering the government's requirements.

In a competitive environment, free of collusive practices, competitors can monitor the results of tendering processes and improve their future bids. This too puts downward pressure on prices over time which means that buyers can get better value for money. All eligible bidder from developed and developing countries should have the same information and equal opportunity to compete under WB financed procurement processes (World Bank, 2007).

Although theoretically procurement policies are intended to promote efficiency, a major drawback exists. As pure competition puts pressure on prices over time, it is important that the procurement process is not affected by anti-competitive practises such as collusion, fraud and corruption. Through anti-competitive practises, the price paid for the goods or services is artificially raised forcing the buyer (government) to pay supra-competitive prices. Consequently, anti-competitive forces have a direct impact on public expenditures and eventually on taxpayers (OECD, 2007).

Some public procurement rules, however, can facilitate communication among competing companies and hereby promoting collusion among them. Since the procurement process must be fully transparent, all information such as the identity of the bidders and the terms and conditions of each bid must be disclosed. This allows competing firms to better coordinate future tenders with its competitors and make for example price agreements. This phenomenon is especially apparent in open tendering, ICB. Open tenders allow competitors to communicate during the course of the tender and therefore make it easier for them to reach a collusive understanding at the auction.

*3.3.2 Transparency and reduced corruption*

Transparency is an important concept in public procurement processes. All rules and regulations concerning procurement should be open and transparent, generally implying clear rules including verification methods that those rules were followed.

Commonly, transparent procurement regimes share the following characteristics (OECD(b), 2007):

1. All participants and potential participants should be aware of the applicable rules of procedures;
2. The discretion of procurement officers in achieving the goals of the procurement process should be structured and be subject to formal rules;
3. Compliance with the applicable rules should be verifiable;
4. Mechanisms should exist for scrutinising decisions to ensure compliance with legal norms.

Clear, open and transparent policies effectively applied are intended to reduce bribery and corruption in public procurement. An open, competitive market will eventually lead to efficiency and 'best value for money', the primary objective of procurement.

In case that recipients decide to forgo competition they must be able to demonstrate that a proposed contractor has unique qualifications and describe steps to be taken to ensure a fair and reasonable price (OECD, 2005).

*3.3.3 Development of domestic supply base*

One of the intentions of procurement policies of the WB is to encourage the development of domestic contracting and manufacturing industries in the borrowing country (World Bank, 2007). It is intended that objective and transparent procedures can help enhance the efficiency of local suppliers as they compete for public contracts, thereby improving trade prospects by making these suppliers more competitive exporters. Transparent procedures will give all bidders, foreign and local, equal opportunities to make a bid. Often, it is even required that a foreign supplier is represented by a domestic supplier when making a bid. Usually, these local suppliers are involved with after sales services such as maintenance and training. This implies that the recipient can hold the foreign supplier accountable directly via a local subcontractor in case of errors, for example when the equipment breaks down. In that case, the local supplier is easily traceable for the recipient and held accountable for the repair or maintenance of the equipment.

## 3.4 Obstacles

Having discussed the rationale behind public procurement and the procurement procedures laid down by the major procurement institutions, the discussion can now be turned to some obstacles and drawbacks of public procurement procedures in developing countries.

### *3.4.1 Transaction costs and bureaucracy*

One of the major drawbacks in public procurement is the transaction costs involved with it. Transaction costs are the costs of running the system and include ex ante costs like negotiating contracts and ex post costs such as monitoring and enforcing agreements. Transaction costs involve the costs of specifying, monitoring and managing contracts (Palmer, 2000). It has been reckoned that the multiplicity of rules imposed by the procurement institutions and the WB and the EU may in fact have a negative impact on transparency and lead to considerable transaction costs, both for the procurement agencies and the potential supplier (OECDb, 2007).

Many contracts are awarded especially in donor-aid projects within a same project. For example, consultancy contracts for the design of the tenders, contracts for the evaluation, contracts for goods and works and so on. Tucker (1998) even considers the fact that WB procedures aimed at competition and transparency can 'create a disease that is worse than the cure', seriously constraining a purchasers' ability to obtain 'best value for money' as well as involving high administration costs, as a serious problem of procurement procedures of the WB. Additionally, contractors usually have to subcontract other companies to supply products which contractors are not capable of, implying increasing transaction costs which will of course eventually be calculated in the prices offered to the client (government).

Also, the institutions often split up projects in different parts. One separate tender may for example consist of several lots for which separate offers must be made and separate contracts must be formed. Splitting-up these projects via procurement into more and more parts results in an increase in all kinds of transaction and administration costs.

Den Butter (2007) describes three ways in which transaction costs occur in the procurement process as described in chapter 2; the contact stage, the contract stage and the control stage. The contact phase is the phase in which the buyer is looking for information about the desired product and potential suppliers. The transaction costs involved here are mainly search and information costs. The transaction costs in the contract phase involve the costs of designing, formulating and determining the conditions of the contract between the supplier and the

government. The final stage of control consists of the monitoring and enforcement of the contract. This means that the involved parties check whether the other party is doing what is agreed upon in the contract.

Table 3.4 below is retrieved from Den Butter and illustrates the transaction costs in different stages in the public procurement process. Needless to say, the involved transaction costs from the procurement notice till the evaluation of the executed project are quite significant.

Table 3.3 Different transaction costs in public procurement

| Stage in procurement process | Related transaction costs |
|---|---|
| **Information gathering**<br>*Search for suppliers.* | • Search costs<br>• Information costs |
| **Supplier contact**<br>*After identification suppliers.* | • Costs of establishing contracts<br>• Building up trust between partners |
| **Background review**<br>*In this stage references for product/service quality are consulted, and any requirements for follow-up services including installation, maintenance and warranty are investigated.* | • Information costs<br>• Costs of considering technical specifications of the products or services<br>• Network costs of finding reliable references |
| **Negotiation**<br>*In this stage negotiations are undertaken, and price, availability, and customization possibilities are established. Delivery schedules are negotiated, and a contract to acquire the product and services is completed.* | • Negotiation costs<br>• (legal) costs of writing a contract |
| **Fulfilment**<br>*In this stage supplier preparation, shipment, delivery, and payment for the products or services are completed. Installation and training may also be included.* | • (legal) costs of writing a contract<br>• Costs of detailed specifications of installation and maintenance |
| **Consumption, maintenance and disposal**<br>*During this phase the company evaluates the performance of the products or services and any accompanying service support, as they are used.* | • Costs of control |
| **Renewal**<br>*When the contract of the supply of products or services expires, and the question is whether the contract should be renewed, the experience of the company with the products or services is evaluated. Now the choice to be made in the procurement process is whether to consider other suppliers or to continue with the same supplier* | • Evaluation costs<br>• New search costs |

*Source: Den Butter, (2007)*

### *3.4.2 Corruption*

Although transparency in public procurement is expected to drive down corruption and bribery concerns, still in many countries there is a perception that corruption and favouritism are considered as a major problem in public procurement. This is because public procurement tends to involve large orders and relatively big sums of money which increases the temptation

of public officials to engage in corrupt practices (OECD, 2007). Generally, the likelihood to engage in such practises is more significant in countries where the level of compensation for government officials is low such as in low-and middle income countries.

Trepte (1998) distinguishes two areas in which the corrupt official could defeat the competitive process. At first, the official can influence the choice of the supplier and secondly, the official can manipulate the terms on which the contract is awarded. In the first case, corruption arises when a supplying firm is awarded the contract in exchange for bribes or other rewards which can be done by, e.g., the agent of the procurer or any government official involved in the tender process. Procurement officers and bidders might collude and make anti-competitive agreements. This implies that the contract is not awarded to the company supplying for 'the best value for money'. In the latter case the terms of the contract are designed to favour specific desired supplying companies and constrain market access to other suppliers. In both areas, corruption distorts the market and has a direct impact on the efficient allocation of procurement the OECD argues. Corruption can therefore be seen as highly undesirable.

Finally, it has to be stressed that certain bidding procedures are more vulnerable to corruption and bribery practises. In direct or single source tendering, government officials have greater influence over which companies receive the contract whilst in ICB open competition should at least in theory reduce corruption.

### *3.4.3 Other concerns*

Besides the potential obstacles mentioned above, a few other risks of public procurement are identified by literature. These are (OECD(b), 2007);

- Ignorance of procurement procedures
- Confidential bid information
- Procurement complaints mechanisms

First of all, recipients may ignore tendering procedures as prescribed by the financing institutions. This can be due to a lack of knowledge, but it can also be a deliberate decision to avoid due procedures and rules of fair competition.

Secondly, there is a risk of a preliminary release of confidential bid information to selected suppliers, for example information about the evaluation criteria. If certain suppliers know beforehand how the tender will be evaluated, the suppliers can adapt their offer to the foreseen requirements, leading to anti-competitive behaviour.

Finally, procurement complaints mechanisms are constructed to bring forward possible violations of procurement procedures. These procedures are usually very useful but these mechanisms can also be misused. Companies can abuse the rules by file unfounded complaints to delay the tender process or to harm competitors.

## 3.5 SWOT

To summarize the current chapter, an analysis of the Strengths, Weaknesses, Opportunities and Threats (SWOT) is provided about current ICB procedures concerning medical equipment in developing countries, illustrated in table 3.5.

The basis for current transparent procedures is to provide a strong basis for open competition, intended to lead to the best prices. Identified weaknesses include bureaucracy, rigid and strict procedures and significant transaction and administration costs because of the 'transparency objective'. Further critics and opportunities will be explored in the following chapters.

Table 3.5 SWOT of current ICB procedures

| **Strengths** | **Weaknesses** |
|---|---|
| • More competition<br>• More transparency<br>• Greater efficiency<br>• Less corruption<br>• Develop local supply base | • Bureaucracy<br>• High transaction/administration costs<br>• Corruption and collusion<br>• Ignorance of procedures<br>• To be further explored in next chapters!! |
| **Opportunities** | **Threats** |
| • To be discussed in next chapters | • Transparency remains essential and needs to be provided for tax-payer |

## 3.6 Conclusion

In sum, public procurement in developing countries is an emerging issue since often the government is the major purchaser in the market. Hence, the effectiveness of procurement may have profound direct, social and economical impacts on developing countries. Transparent procurement procedures are primarily intended to promote competition and efficiency as well as to minimize corruption and bribery efforts. However, still it can be stated that under procurement policies there is considerable room for corruption. Moreover, transparency requirements might even make procurement systems even non-transparent because of the abundant rigid rules and regulations designed to promote transparency. These procedures lead to bureaucracy and involve tremendous transaction costs. From both donor

and recipients comes the knowledge that donor finance, either loans or grants, need to be spent wisely and in the most efficient manner. Inefficient procedures may not only result in bad or incomplete projects for the recipient but may also jeopardize the future readiness of financing organizations to continue to offer preferential loans or grants .

However, first the actual results of foreign aid need to be discussed. What are the facts on the effectiveness of foreign aid? Has academic literature provided evidence about inefficiencies in the foreign aid industry? These questions will be discussed in the next chapter. Then, the question arises, from this point of view, how these procedures could be improved to make them more effective.

# Chapter 4. Aid effectiveness explored

## 4.1 Introduction

Having discussed potential drawbacks of foreign aid via international public procurement policies in developing countries, the analysis can now be turned to the academic literature on the effectiveness and the actual facts of development aid. Development aid is an important industry. Many doubt the effectiveness of this flow on the welfare of receiving nations. There is a large volume of empirical literature on aid effectiveness that has emerged in the last three decades and the results of foreign aid are highly debated. This paragraph will provide an analysis of major findings and reviews the debate on the effectiveness of aid. First, it will focus on the overall aid effectiveness and economic growth in general. Then, the analysis will be turned to micro level results followed by research done on a procurement level. At the end a conclusion is drawn.

## 4.2 Academic literature on aid effectiveness

To answer the question whether aid has been effective, first development aid goals need to be assessed. There are many potential goals for aid and little consensus around methods to maximize progress toward any particular goal. Besides, the determinants of success an failure are often complex (Kenny, 2006). In most of the recent literature on 'aid effectiveness' the assumption has been that effective aid is that which increases recipient country GDP per capita growth rates. Also the OECD defines effectiveness official development assistance (ODA) in terms of economic development:

> *'aid flows from bilateral or multilateral agencies that aid flows from official bilateral or multilateral agencies that aim to promote economic development and welfare in poor countries and that contain at least a 25 percent grant component'*
>
> *Source: Vasquez, (1998) page 276*

But it has been difficult to determine whether foreign aid can boost growth and alleviate poverty. Easterly (2003) and others have argued that the engine for development is not donor aid but political leadership, favourable macro economic environment, economic incentives, and private donations and private capital. However, one might also be concerned about income growth, income inequality and social issues as health and education. The maximizing

of aid flows themselves, in particular flows through individual donor agencies might also be a goal in itself.

A common problem of the studies on aid is the lack of differentiation between different types of aid. Short term aid will probably have less impact on economic growth while other aids used for infrastructure and investments will result in a positive economic growth.

### *4.2.1 Aid effectiveness on a macro level*

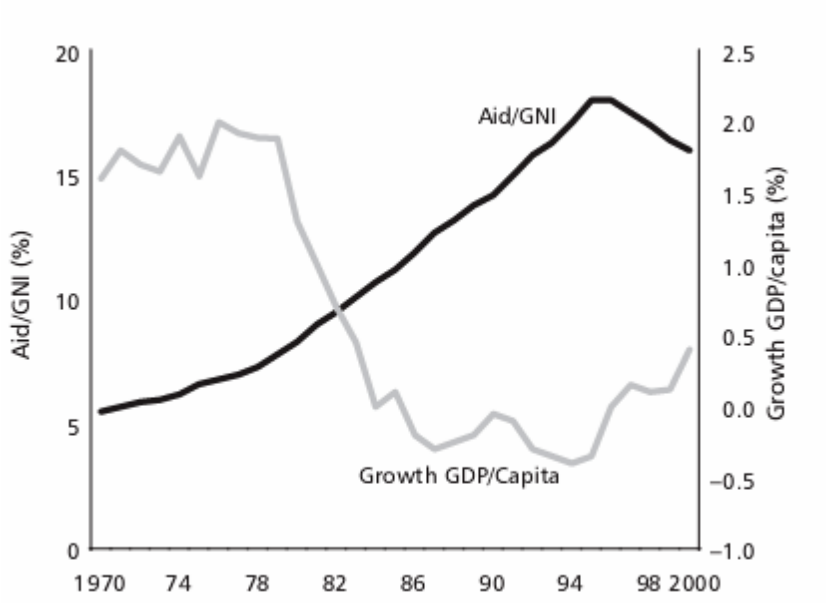
Because of the wide range of objectives, there may be no simple answer to the question whether aid is effective. Yet the literature on the impact of aid on long-run growth is mired in controversy, with claims and counter-claims about aid effectiveness.

The aid effectiveness literature consists of econometric studies of the macroeconomic effects of development aid. Doucouliagos & Paldam (2005) conducted a study considering a set of 68 papers on aid effectiveness and the all-set of 543 regressions published. They conclude that the raw data show that growth is unconnected to aid. In fact, the literature has not established that aid works.

Easterly (2006) attempts to investigate the relation between the amount of foreign aid received and income in a sample of 137 countries between 1950 and 2001. Easterly divides the countries in two subgroups; one group with countries receiving more than average foreign aid and the second group including countries receiving less than average foreign aid. It can be concluded that both groups have achieved the same income growth. In fact, the poor countries with significant aid assistance appeared to have achieved no significant higher income growth than countries with significant amounts of foreign aid received.

The figure 4.1 illustrates the development of foreign aid and economic growth in terms of GDP in Africa in the years 1970-2000. Foreign aid increased while growth decreased. The relation between aid and growth in this figure is negative. Easterly thinks that the increase in aid is probably not the cause of the decreasing GDP. Instead, the decreasing growth is likely the reason for increasing development aid.

Figure 4.1 Aid and growth in Africa




Source: World Development Indicators Online

Easterly (2006) also asks itself why other countries as India and China each year generate a growth of 715 million dollar without significant foreign aid as a percentage of their income. The same counts for the newly industrialized countries (NIC's): Hong Kong, Korea, Singapore and Taiwan. All these countries have made a step in the last 4 decennia's in the development from the third to the first world without significant foreign aid.

Research by Boone (1996) confirms that aid is ineffective because it tends to finance consumption rather than investments. The effect of aid on investments is zero. Second, the effect of aid on growth is zero.

In contrast to the scholars (Easterly; Doucouliagos & Paldam; Boone) who found no conclusive evidence that aid supports economic growth, some literature does find a positive correlation between aid and growth.

Using an analytic framework for evaluating the empirical work, Hansen & Tarp (1999) have concluded that a coherent and positive picture of the aid-growth link emerges. By analyzing different aid-growth models in literature, they conclude that aid works, even in countries hampered by an unfavourable policy environment. They found a consistent pattern of results. Aid increases aggregate savings; aid increases investment; and there is a positive relationship between aid and growth in reduced form models.

It appears that foreign aid has been related with high growth in some countries, but not in others. Some studies, like Hansen and Tarp find a positive relationship between aid and growth. Other research, like Doucouliagos & Paldam and Easterly have found either no overall relationship, or a conditional relationship in which aid effectiveness depends on strong policies or institutions. Burnside & Dollar (2004) found that aid had a positive effect on growth in developing countries with significantly better than average institutions and policies, whereas aid had no positive effect in countries with average policies. According to the World Bank (Year Unknown), the effect is significant. In countries with sound country management, 1 percent of GDP in assistance translates into a 1 percent decline in poverty and a similar decline in infant mortality. In countries with a strong environment, a $10 billion increase in aid would lift 25 million people a year out of poverty. In countries with a weak environment however, an increase of $10 billion would lift only 7 million people out of poverty according to the World Bank.

It has to be mentioned that the Burnside & Dollar model was re-estimated by Easterly and some other scholars with a more comprehensive data set but they could not find evidence supporting the statement that aid favours growth in countries with good policy. Rajan & Subramanian (2005) also retested Burnside & Dollars hypothesis but could neither find supportive evidence that aid is more effective in countries with good policy.

Question off course remains if then aid should be neglected to countries without good policy. Mostly, countries where aid works the best are, at the same time, among those that need foreign aid the least.

Then, the analysis can be turned to possible reasons why literature has not proved that aid has lead to higher economic growth.

First, that aid reduces the competitiveness of exporting sectors. In countries that receive relatively more aid, exportable sectors grow slower relative to non-exportable sectors. Growth is consequently lower as a result of reduced competitiveness. A causal link between aid, overvaluation of the real exchange rate and competitiveness was found by research of Rajan & Subramanian. Aid inflows have an effect in the real exchange rate, leading to overvaluation. Overvaluation of the exchange rate leads to a decreasing competitive position.

Second, most aid is tied aid. This means that the aid must be spent in the country providing the aid or in a group of selected countries. For the supply of medical equipment, this means that donor aid must be used to buy the equipment in the country that provides the aid. This may not lead to the most efficient and cost effective way the equipment is purchased.

According to the OECD, 58% of the total foreign bilateral aid is tied. This may hamper the growth in the recipient country. The rest, 42% is untied.

### *4.2.2 Aid effectiveness debated*

Empirical research has found different evidence on the aid-growth link. Then, the question obviously arises how this difference can be explained.

According to Hansen & Tarp (1999), there has been a tendency for negative studies to dominate the debate. They however argue that negative studies are clearly in the minority and state that when all the studies are carefully considered as a group, the positive evidence is convincing. The most common result in recent empirical studies is that aid has a positive impact on real GDP per capita growth, but displays diminishing returns. This means that aid works and suggests that it is now time to move on to consider how the effectiveness of aid can and should be improved.

Contrary, Doucouliagos & Paldam (2005) think that results may be biased since the main institutional interests in the aid literature are that those working for or financed by the aid industry may have a prior for showing that aid works. At least 35% of the aid effectiveness researches work for the aid industry, and it is likely to be much more. Consequently, researchers will be reluctant to publish negative results. Second, it has also been argued that donors only reserve a very small budget for development research. As a result, the link between the aid industry and academic research is weak.

Thirdly, half of the 104 authors in aid-effectiveness studies appear in 2-5 papers and many of them are members of groups. This fact may lead to biases in research demonstrating that their model is right and the other model is wrong.

Foreign aid in different times and different places has been highly effective, totally ineffective, and everything in between. Foreign aid has at times been a success. Examples of countries that have gone from crisis to rapid development with help of foreign aid are Botswana and the Republic of Korea in the 1960s, Indonesia in the 1970s, Bolivia and Ghana in the late 1980s, and Uganda and Vietnam in the 1990s (World Bank, Year Unknown). On the contrary, Zaire (now Congo) and Tanzania are one of several examples where a steady flow of aid ignored, if not encouraged, incompetence, corruption, and misguided polices according to the World Bank.

In conclusion, there seems to be no consensus in academic literature whether foreign development aid has lead to economic growth. The effect of aid therefore remains doubtful.

### *4.2.3 Aid effectiveness on a micro level*

Whilst it has been difficult to prove a significant link between foreign aid and economic, the analysis can be turned to the performance of individual aid projects on a micro level.

The World Bank analyzes its projects and measures the outcomes in terms of % satisfaction, % sustainable and on Institutional Development impact. Analyzing World Bank's projects per sector over the years 1996-2005 yields some interesting results.

First, accumulating all projects in different sectors leads to a number of 202,287 executed projects in the years 1996-2005. The sectors 'economic policy' and 'energy and mining' are the biggest sectors in terms of World Bank supported projects. The sector 'Health nutrition and population' has a 5.2% share in the total amount of World Banks funded projects. 77.9% of all projects are considered as satisfactory including outliers as global information and technology (95.5% satisfactory), poverty reduction (100.0%) and on the negative side economic policy (60.8%) and social development (29.8%). In addition, when having a closer look at the sustainability also positive numbers arise. Of all projects, 73.3% is judged as sustainable, some of the sectors are even approaching a 100% sustainability rate.

However, the satisfaction and the positive results of the World Bank's individual projects do not coincide with macro level growth numbers as described in the previous paragraph. The seeming lack of a positive macroeconomic impact of aid in combination with the many favourable micro-based project evaluations is a riddle. This contrast, between macro level ineffectiveness and micro level effectiveness is known as the 'micro-macro paradox' in literature, identified by Mosley in 1987 (Hansen & Tarp, 1998).

Table 4.1 Outcome, Sustainability, and Institutional Development (ID) Impact by various Dimensions, by Disbursement, Fiscal 1996-2005

| | Number of projects | Share % | Outcome (% satisfactory) | Sustainability (% likely or better) | ID impact (% substantial or better) |
|---|---|---|---|---|---|
| **Sector Board** | | | | | |
| Economic policy | 26090 | 12.9 | 60.8 | 68.7 | 33.4 |
| Education | 16065 | 7.9 | 84.0 | 79.7 | 52.4 |
| Energy and mining | 26632 | 13.2 | 72.2 | 66.9 | 50.4 |
| Environment | 4044 | 2.0 | 65.9 | 74.1 | 40.6 |
| Financial sector | 22910 | 11.3 | 81.5 | 80.8 | 56.0 |
| Global information/communication technology | 2005 | 1.0 | 95.7 | 96.7 | 62.0 |

| | | | | | |
|---|---|---|---|---|---|
| Health, nutrition and population | 10442 | 5.2 | 72.3 | 73.9 | 50.3 |
| Poverty reduction | 662 | 0.3 | 100.0 | 100.0 | 33.5 |
| Private sector development | 6685 | 3.3 | 83.0 | 82.2 | 57.4 |
| Public sector governance | 13866 | 6.9 | 85.4 | 87.3 | 50.7 |
| Rural sector | 24047 | 11.9 | 79.3 | 66.6 | 53.5 |
| Social development | 405 | 0.2 | 29.8 | 92.1 | 22.2 |
| Social protection | 9621 | 4.8 | 87.3 | 76.8 | 53.6 |
| Transport | 21885 | 10.8 | 89.7 | 80.1 | 58.7 |
| Urban development | 8846 | 4.4 | 85.1 | 67.8 | 35.2 |
| Water supply and sanitation | 8074 | 4.0 | 67.1 | 50.6 | 34.1 |
| **Overall Result** | **202,281** | **100.0** | **77.9** | **73.7** | **49.1** |

*Source: World Bank, (2006)*

The second observation is the impact the executed projects have on institutional development. While the projects perform well on the first two key performance criteria, outcome and sustainability, the performance of the projects on development impact is remarkably lower. On average, 49.1% succeed in achieving a significant development impact. The question still remains if the remaining 50.9% that fails also harm. Hence, the outcomes measured in sustainability and satisfaction show better outcomes than the outcomes measured in institutional development. The projects in the health, population and nutrition sector are for around 73% sustainable and satisfactory but as few as 50.3% percent of health, nutrition and population projects supported by the World Bank worldwide achieved substantial institutional development impact. The same pattern becomes apparent in other sectors.

Hence, it appears that on the micro level, donor agencies report regularly through their annual aid effectiveness evaluation about the success of the vast majority of their projects and programs. The picture that emerges in table 4.1 from the evaluation is certainly not one of aid ineffectiveness.

### *4.2.4 Summary*

The empirical literature on aid effectiveness has yielded unclear and ambiguous results. The pressing question remains: How can development assistance be most effective at reducing global poverty?

Of course, answering this question would deserve a Nobel Price. This thesis will not provide a comprehensive answer on how all development aid can be provided in a more effective way. Neither will this thesis provide an answer how poverty can be solved. Instead however, it takes out one single piece of the total pie which can be a step forward in the right direction.

As will be discussed further in this thesis, strengthening public procurement systems is a major item on the international aid effectiveness agenda. This thesis will focus on improving procurement practises of medical supplies in developing countries.

## 4.3 Improving aid effectiveness via public procurement

Public procurement systems are at the centre of how public money is spent. Through these mechanisms, 12 to 20% of developing country GDP is spent annually (and as much as 70% of GDP in post-conflict countries such as Uganda or Sierra Leone). Even marginal improvements in these systems can therefore yield enormous benefits. Yet, only a very small literature has emerged on public procurement in developing countries Evenett & Hoekman (2005) argue. Only a few studies attempt to analyze experiences of procurement practises in developing countries. Moreover, only a few of the articles attempt any form of quantification of the costs, benefits, or effects of existing procurement practices or reform proposals.
Much of the literature on public procurement in developing countries is claimed for the benefits of procurement. Little evidence is available whether indeed these benefits have occurred after the procurement process (Evenett & Hoekman). If indeed the intended benefits would have large effects then this would imply that at least some development in low-middle income countries can be attributed to procurement policies. However, there seems to be no conclusive evidence supporting this statement.

The University of Birmingham carried out a need assessment study on behalf of the OECD (2005) to research how donors can improve development assistance and, moreover, which donor practices, in the current state of affairs, are most undermining the effectiveness of these strategies. In the study, more than 400 interviews with key officials, experts and donor staff were done. The countries within the study represented different geographic regions and levels of development; Bangladesh, Bolivia, Cambodia, Egypt, Mozambique, Romania, Senegal, Fiji, Samoa and Vanuatu, Tanzania, Uganda and Vietnam.

The first objective of the survey was to identify donor practices that placed the highest burdens on partner countries in terms of ownership, aid transaction costs and aid effectiveness. The survey concluded that the following issues appear to mostly undermine the effectiveness of donor strategies:

1) Donor driven priorities and systems (28% of respondents)

*Concerns the pressure donors bring to bear on partners' development policies and strategies.*

2) Difficulties with donor procedures (20% of respondents)
   *This burden refers to the intractability's encountered by partner countries when complying with specific donor procedures. Respondents highlighted procurement and technical assistance as the two main areas that challenged partner administrations.*
3) Uncoordinated donor practises (14% of respondents)
   *Many respondents put forward difficulties in understanding and fulfilling the multiple, diverse requirements of different donors.*

As this thesis focuses on potential improvements in public procurement, some more in depth analysis is required concerning the second most frequently mentioned problem recipients came across with, difficulties with donor procedures. This category includes restrictions over procurement (50% of responses), inappropriate technical assistance (40%) and the problem of donors frequently changing their systems, policies and staff (10%).
Discussing points 1 and 3 goes beyond the scope of this thesis but nevertheless are not to be forgotten. Respondents in Vietnam recognized procurement as a problem area and identified the following corresponding reasons:

1) Procurement is complicated, time-consuming and the procedures differ from one donor to another;
2) Many restrictions prevent local companies from participating in competitive bidding. Some donors do not allow state-owned enterprises to bid if they were connected to the ministry organising the call for tender; at the same time, only contractors that were not based in the province where the project was implemented were allowed to put in a bid. This was felt to exclude those firms with the most appropriate local experience;
3) In the case of tied-aid, there are further restrictions: imported equipment was not deemed of adequate quality or compatible with existing equipment. It was also more expensive. Tied aid was cited as a factor that most diminishes the value of aid.
4) In addition respondents in Vietnam indicated that donors' lengthy and cumbersome procedures at project preparation stage caused delays. Consequently projects were often out of date by the time they began – project objectives were no longer relevant or appropriate, technology specified in the project design was obsolete.

*4.3.1 Lessons procurement in infrastructural projects*

One of the major intended benefits of public procurement is the promotion of transparency and hereby reducing corruption and other anti-competitive efforts as elaborated in chapter 3. However, it seems that conclusive evidence lacks whether indeed public procurement prevents from taking anti-competitive efforts. In fact, there is even evidence that tender procedures behind large projects in developing countries like the construction of a highway, a tele-communication network or a major seaport, can be manipulated in several different ways (Søreide, 2006).

The research reports that experience from international procurement infrastructure projects illustrates that contracts are pre-selected, tender criteria are influenced by the tenderers, firms consider the procedures biased and unfair, and rules of communication are not respected. Søreide examines some of the limitations of infrastructure-related procurement procedures among 82 Norwegian export firms in 2004. Of the responding firms, 70% claimed that anti-competitive efforts by competitors had certainly or probably cost them important contracts. Moreover, 42% indicated that they had reason to believe that believe that competitors influence tender procedures unduly, 10% had to meet payment from an agent which most likely would be used for bribery. Finally, 27% of the responding firms reported that they had been required to give valuable presents or bribes to be able to operate in certain markets.

The research reports that it was quite common to design the contract to fit to the offer of one specific tenderer. 41% of the firms thought that tender specifications turn out to be designed to fit the offer of one specific company. Hence, tender specifications have been set in advantage to a particular firm. This firm will thus offer the lowest price, and the formal procedures appear satisfactory. Such bid rigging will often affect the choice of technology.

Furthermore, the research doubts on the efficiency of tender rules in controlling corruption. Concluding, it is optimistic to believe that sound and internationally recognized procurement procedures represent efficient anti-corruption tools. Rules are important, but efficient only when combined with other efforts.

Evidence from case studies also identifies corruption in the procurement of goods and services in developing countries. An assessment of 24 construction contracts in Tanzania for example had found substantial cost overruns; costs had escalated from US$ 97.4 million to US$ 154.7 million to be attributed to corruption. Ecuador has also reported considerable corruption in public contracts. Public contracts involved bribes of between 10% and 30% (Doig & Riley, Year Unknown).

Research from the OECD (2005) reports that that corruption in public contracts in areas such as construction is widespread and that the cost of corruption can be greater than 20% of the total original contract price as illustrated in the table beneath.

Table 4.2 Proportion of contract price paid in bribes to secure a public contract in selected countries

| Country | Size of payment for all public contracts | Size of payment for construction contracts |
|---|---|---|
| Peru | 15,8% | 12,3% |
| Paraguay | 21,8% | 24,0% |
| Colombia | 15,9% | 14,1% |
| Ecuador | 14,4% | 13,4% |
| Ghana | 8,3% | 9,3% |
| Sierra Leone | 8,5% | 13,3% |

*OECD, (2005)*

## 4.4 Conclusion

Concluding, there is considerable doubt in academic literature whether current development aid is provided in an effective way. 50 years of development aid has not lead to better economic growth or a significant poverty reduction. The results on a micro level are contradicting the results on a macro level, a phenomena which is called the 'micro-macro paradox'. The positive results on a micro level require a critical analysis by whom and how the evaluations of these projects are carried out and what the evaluation criteria in fact are.

The disagreement in aid effectiveness literature requires more research, not only about the question whether aid is effective or not but also how the delivery of aid can be improved. The fact that academic research has not provided conclusive evidence for an aid- growth link has lead policy makers to express concerns about the effectiveness of aid.

Besides, academic research has shown that recipient countries have considerable problems with donor's procurement procedures and indicated procurement as a key problem area in official development aid practises. It has also been recognized that procurement methods do not always lead to the intended results. Studies have shown that procurement methods can lead to anti-competitive behaviour, especially in developing countries. Significant corruption practises have been reported especially in larger infrastructural projects. Moreover, it has been stressed that studies on public procurement in developing countries tend to focus more on the

intended benefits than on the possible weaknesses and there seems to be an overall lack of studies whether indeed these benefits have occurred after the procurement process.

Donors have agreed that improving procurement practises in developing countries is one of the ways to increase aid effectiveness. Development assistance for health has increased from just over USD 6 billion in 1999 to USD 13.4 billion in 2005. Improvements in procurement practises in the health sector may have significant effects for developing countries.

This thesis only looks at one aspect of aid effectiveness in the entire spectrum; the supply of medical equipment and services via international procurement policies. Around 74% of the World Bank's health, population and nutrition projects over the years 1996-2005 have reported sustainable and satisfactory results. However, only 50% of the projects appear to have an institutional development impact. Current thesis will critically look at current procurement procedures and evaluate how these procedures can be improved to in order to have a better development impact.

# Chapter 5. Research Methodology

## 5.1 Introduction

Thus far, chapter two provided a general introduction about what constitutes public procurement. This chapter also addressed major international procurement practises with the focus on ICB and how this procedure in practise works. The following chapter three described the potential relevance of public procurement in developing countries and drawbacks of ICB procedures applied to developing countries. The next chapter, chapter 4 illustrated the current debates on aid effectiveness and suggested that improving procurement practises in developing countries could be considered as a way to increase aid effectiveness. The question arises how ICB procedures could be improved to make foreign aid more effective. Therefore, it is interesting to complement this discrepancy with some more concrete insights from practise. This thesis attempts to make contributions to the existing literature on international procurement in developing countries. In this respect, this research must find out how in practise the procurement procedures might be changed, so that developing countries can benefit from it.

## 5.2 Research objective

The objective of this research is to obtain a better understanding of how the ICB process of health care equipment should be further optimized in developing countries. It is expected that this might help developing countries towards solving health care problems.

## 5.3 Research Methodology

The design of a research is the framework for a study, used as a guide in collecting, measuring and analysing data. In the development of such a framework, many decisions have to be made: the purpose and the accompanying type of the study, the data methods of data collection and the units of analysis (Eisenhardt, 2001). This paragraph shortly describes the level of investigation.

### *5.3.1 Type of study*

Regarding the objective of this research, obtaining a better understanding of the ICB process of health care equipment in developing countries, the design of the research must be appropriate for obtaining this insight. Therefore, a qualitative explorative research will be

applied during this study since the aim is to get a better understanding of the topic and to discover new insights.

Almost all current literature on procurement has recognized the potential of ICB procedures in developing countries. However, literature has also identified a number of drawbacks and literature on aid effectiveness has doubted if current foreign aid practises have been effective. Moreover, it has also shown that developing countries might potentially have difficulties with understanding Western procurement policies and that academic literature on procurement in developing countries is biased towards the advantages rather than the disadvantages and weaknesses. Hence, the aim of this study is to get a better understanding of the topic and to discover new insights and hereby supplement current literature. It will supplement current literature with potential improvements in ICB procedures of medical goods and services of developing countries with concrete insight from practise.

Concluding, the objective of this research is not to test theories; rather, the goal is to build upon existing theories and to add new insights on existing theories.

### *5.3.2 Data collection*

In order to do an explorative research, many methods can be used for designing the research method. By use of the qualitative research interview technique, new insights about ICB procedures applied to developing countries are explored by using semi-structured interviews as illustrated in table 5.1. In total, six people were interviewed orally, one to one. Interview 6 and 7 were taken together. The interviews took between the 1 and 2 hours each and were performed within a time span of approximately 3 weeks. Outcome and results of the interviews can be found in appendix III.

### *5.3.3 Data sources*

Data sources in this study are two folded: (1) interviews are held with stakeholders in the process of ICB of medical supplies to developing countries and (2) ethnographic research is done. Selecting individuals is an important aspect of qualitative explorative research. The interviewed are carefully selected because of a number of reasons, explained below.

#### *DRC Medical*

Interviews are held with several product managers and a director of a company, DRC Medical (www.drcmedical.com) specialized in supplying medical equipment via ICB procedures in developing countries. DRC is a regular contractor of equipment in international funded programmes for the World Bank, the Asian Development Bank, the African Development

Bank, the European Union as well as a large range of UN organisations worldwide. Such contracts awards are the result of international tendering procedures under donor's regulations. DRC product managers are expected to have considerable knowledge and experience with international procurement.

*AMPC International Health Consultants bv*

Besides DRC Medical, interviews are held with international health consultants (www.ampc.nl) involved in international procurement of medical supplies and often acting as an agent for medical supplying companies. AMPC bv has been selected as one of the units of analysis in this thesis because of a number of reasons.

Associated Medical Project Consultants b.v., AMPC, is an independent consultancy firm, providing international consultancy services in a wide range of healthcare areas. With more than 15 years of experience, AMPC has gained expertise in a vast variety of healthcare studies as well as the design, preparation, equipping & furnishing, commissioning and evaluation of medical projects in developing countries. Through membership of and cooperation with several national and international professional bodies, AMPC consultants also contribute to policy making in healthcare and development aid.

One of the primary activities of AMPC bv is to develop a detailed equipment list, medical as well as furniture, per room, including the necessary technical specifications. AMPC bv has constructed medical equipment lists in health care projects for the European Union in countries as Lebanon and in Madagascar. These equipment lists, bills of quantities, in turn can form the basis of a tender document. Additionally, AMPC bv has been involved in the evaluation of tender bids in various countries.

Besides, AMPC has a vast experience in designing and executing specific training programs in medical equipment staff training. Training focuses on application training, medical training, hospital management training, and facility management training.

Finally, AMPC bv has performed a great variety of health care studies in developing countries. Hereby, it has visited many hospitals to evaluate the status and the quality of the health care system. During these visits, AMPC bv has in practise seen the results of international tenders of medical equipment. Hence, it is expected that AMPC bv has the knowledge to judge about the quality, weaknesses and potential improvements of procurement of medical goods and supplies in developing countries.

Table 5.1 Data sources

| Interview | Occupation |
|---|---|
| Interview 1 | Director and owner DRC Medical |
| Interview 2 | Product/sales manager DRC Medical |
| Interview 3 | Product/sales manager DRC Medical |
| Interview 4 | Product/sales manager DRC Medical |
| Interview 5 | Product/sales manager DRC Medical |
| Interview 6/7 | Senior partner and International Health Consultant AMPC bv |
| Interview 8 | Director/International Health Consultant AMPC bv |

Besides secondary data obtained from interviews, this study is partly ethnographic. Den Hertog & van Sluis (1995) reckon that no clear definition of ethnography exists. This ethnographic method is the qualitative description of a phenomenon, based on fieldwork and is mostly used for theory building. This means that the research is partly done by the researcher itself, who observes accurately what he sees and hears and uses himself as an instrument (Den Hertog & van Sluis, 1995). Ethnographic research is aimed at a pure description of a phenomenon, theory building or testing theory Den Hertog & van Sluis reckon. The ethnographic part in this research is aimed at theory building. Working in the health care sector in developing countries and site visits to hospitals in developing countries have been very useful to me to obtain useful insights about how in practice hospital equipment is delivered and used in these countries. Countries that have been visited by me include Mauritania, Ecuador and Nicaragua. This is of crucial importance to gain familiarity with the delivery of medical equipment via ICB procedures in these countries. Consequently, these observations can be turned into theoretical constructs (Den Hertog & van Sluis, 1995). When understanding the context which the equipment is supplied, lessons can be learned with respect how medical equipment should be delivered in these low-and middle income countries.

## 5.4 Conclusion

This chapter described the research process as applied in this thesis. This thesis attempts to make contributions to the existing literature on public procurement in developing countries. An explorative research is appropriate for the topic in this thesis since literature is not sufficiently comprehensive. The research is a combination of interviews and ethnographic research. The objective here is to add new insights to the existing literature and to extend academic literature on public procurement in developing countries.

# Chapter 6. Lessons from ICB projects in developing countries

## 6.1 Introduction

Until now, the theoretical perspectives that have been discussed about ICB in developing countries are presented at an abstract level. The following paragraphs will describe how ICB works in developing countries in practise. Hereby, the weaknesses are identified according to the three stages in process of international competitive bidding as described in paragraph 2.4; (1) the preparatory phase; (2) the bidding and the evaluation phase and (3) the execution phase. The identified weaknesses are randomly ordered, not in sequence of importance.

The identified weaknesses are a summary of the major weaknesses as derived from the interviews. An overview of all identified weaknesses can be found in appendix II.

## 6.2. Preparatory phase

### *6.2.1 Problems with specifications of the equipment*

All interviewed reported considerable problems with the specifications of the equipment. At first, there was common agreement that quality of the specifications of the equipment is poor. It has been stressed that once specifications are not of good quality, this will be notable in the following phases of the project. Low quality specifications can never lead to the supply of adequate medical equipment. Some interviewees have even stressed that in many projects, low quality specifications result in the supply of below the minimum standard of equipment. In particularly, the specifications of the more sophisticated equipment, as ECG's, x-rays and mammospectometers, are lacking or of very bad quality. The issue of poor quality specifications can be illustrated by using an example of one of the interviewed. The interviewed compared the specifications of medical equipment with the specifications of a car. Suppose, in a tender a car is requested and the only specification as specified in the tender document is that the car must have 4 wheels. Of course, a Tata Steel car will be supplied out of India. The same happens with the supply of medical equipment. The minimum equipment will be provided.

Secondly, a major concern is that specifications are not in line with the needs in the developing countries. It has been reported that the requested equipment is not in line with the necessary pre-conditions in the developing country. For example, x-rays need voltage stabilizers because of no stable electricity supply in most of the hospitals in developing countries. It has also been stressed that sophisticated equipment is required from which

interviewees expect that it is too sophisticated taking developing countries pre-conditions into consideration.

Thirdly, some interviewed argued that the specifications were not generic. Generic specifications are required because of transparency concerns. However, some interviewees had the suspicion that the specifications had been constructed on purpose focused on one particular company.

Finally, the research has also indicated the tender document is often full of mistakes with respect to the specifications. Old standards not available on the market or a simple combination of 2 products have been reported. Or even in some tenders in the European Union, equipment is required which is not available within the boundaries of the European Union, a necessary requirement of EU tenders.

When the interviewed were asked for the potential reasons of the problems with the specifications, they thought that the financing institutions mainly hire not sufficiently qualified people, people with no adequate expertise. Medical equipment is by nature very complex and it requires a vast expertise and experience to construct detailed, proper specifications for medical equipment for hospitals in developing countries.

## 6.3 Bidding/evaluation phase

### *6.3.1 Lack of expertise and knowledge of local authorities*

Respondents indicated that local authorities, mostly by means of the tender committee or the evaluation commission, have considerable problems with understanding World Bank/EU procurement procedures. This conclusion is in line with the conclusions from the research done by the University of Birmingham in paragraph 4.3.

First of all, the bidding document seems to be not always clear to the local authorities. One of the problems mentioned for example is the Incoterms of the contract which specifies which party is responsible for which costs and risks in the final supply of the equipment. This apparently is sometimes not understood well by local authorities and consequently it occurs that equipment is standing idle in the harbour for months; waiting for a party paying for the taxes and duties. But also payment conditions are not always respected by local authorities.

There is also concern whether local authorities have the knowledge and expertise to evaluate the bids which are by nature technically very complex. There is considerable doubt whether in the developing countries the technical knowledge is available to evaluate the bids.

Furthermore, it has been stressed that in the countries, there are often not sufficient qualified engineers available to maintain the equipment adequately and to repair the equipment in case it breaks down. This is a major obstacle for the sustainability of the projects.

### *6.3.2 Communication/supplier power*

Another problem is a problem of communication in the bidding phase between the suppliers and the local authorities. This problem is related to other problems. For example, the poor quality specifications or mistakes in the tender documents leads to questions of suppliers and subsequently often requires clarification of the tender committee. However, it seems that local authorities are not always capable of dealing with these questions and moreover do not take responsibilities in answering these questions and hereby solving problems in the tender document. The answer suppliers commonly hear is 'please comply to tender document' is in some way related with the lack of expertise of local authorities as mentioned in the previous paragraph. It was stressed that suppliers can ask for clarifications but that local authorities do not have the obligation to answer these questions in within a fixed time period. This makes it sometimes impossible for suppliers to incorporate newly retrieved information in their bids.
A related problem is communication in the evaluation phase between the suppliers and the local authorities. In principle, the evaluation commission is not allowed to be contacted by the suppliers. However, although not allowed, each local evaluation commission appears to interpret this rule differently which gives room for subjectivity.

### *6.3.3 Evaluation*

A number of problems have been mentioned with respect to the evaluation phase. As previously described, it is doubted whether the local authorities have sufficient knowledge for evaluating technically complex bids. Secondly, it has been responded that no clear evaluation criteria exist. Although in theory evaluation criteria are stated, these criteria are vague and not always applied. For suppliers, it is not clear if the focus is on price, quality or other factors as after sales service. There is always a possibility to eliminate bids on the basis of non-compliancy. There is no way that a supplier can fully be compliant, minor deviations of the specifications always exist. Since these criteria are not set in advance, this opens ways to creatively find errors in bid documents that lead to the rejection of bidders. Rejections are always on the basis of 'non-compliancy'.

## 6.4 Execution phase

### *6.4.1 Training and maintenance component not adequate*

Among respondents there was common agreement about the lack of a maintenance and training component in current tenders. The product component in current tenders is significant. It was stated that in current tenders only a first year warrantee of suppliers is requested without further maintenance contract. This means that suppliers are not contracted in the long-run for maintaining the equipment. It has been stressed that particularly in a vulnerable environment as hospitals in developing countries, where often low quality equipment is supplied, equipment breaks down quickly and there has to be a party maintaining and repairing the equipment for a long-term sustainability. Locally, often not sufficient resources and knowledge are available to properly maintain the sophisticated equipment. Respondents agree that current health care projects via ICB procedures are by no means long term sustainable. Table 4.1 in paragraph 4.2.3 conforms this picture.

Then, many examples have shown to illustrate that the users, physicians often have not asked for the equipment and do not understand how to use the equipment, meaning that training is needed. In current ICB procedures, neither a training component is requested.

A final concern is the supply of spare parts. These are rarely requested in current procedures. Consequently, when a simple spare part breaks down, the equipment stands idle for months, while this could have been prevented if spare parts were requested in the tender.

One of the respondents stated that maintenance, training and spare parts are often not requested by developing countries. Often, the decision to engage in a loan of the World Bank to supply the necessary equipment is a political decision. For politicians in developing countries, with often a short-term time period and view, it is politically better to purchase visible equipment than buying maintenance on the long-term. Or as the respondent stated: “politicians want a photo in the press with themselves and some x-rays, rather than a maintenance contract from which the result is noticeable after 5 years”.

### *6.4.2 Equipment not in line with needs*

An often mentioned problem is that the supplied equipment is not line with the needs and with the local contextual conditions. Pre-installation requirements are often not met which for example means that water supply, electricity network, sockets, etc., are lacking, not available, or of poor quality to properly install the equipment. Sometimes, there is not even a specialist available, for example an eye physician working with eye equipment. As a result, it has been

stated that expensive equipment is sometimes standing idle. Or supplied equipment is not compatible with existing equipment. The most striking example was that the interviewed supplier indicated that it had on one occasion even had to supply equipment to non-existing hospitals.

These problems illustrate the phases in the ICB process of medical equipment are apparently fragmented. There seems to be no coordination between the parties involved in constructing the tender, and the parties executing the tender.

## 6.5 General weaknesses throughout the process

### *6.5.1 Responsibilities and coordination*

It appears that throughout the entire tender process, responsibilities of different stakeholders are not clear. Because for each different phase in a tender process another actor is responsible, nobody seems to carry the overall responsibility of the project. Every actor in the process only executes his part of the process. The different parties in the different phases do not communicate with each other; there is no coordination between the actors in the different phases in the project. The process is highly fragmented and uncoordinated. Within one health care project, the parties involved in constructing the tender and determining the needs of the recipient country do not communicate with the suppliers. The suppliers do not communicate with the hospitals and the tender is often split into different parts (lots) which make the process even more fragmented. Stakeholders all carry out their task in the process but are not involved in each others part of the process. The situation can be compared with building houses were the constructers are separated from the architects.

Respondents indicated that in the health care projects via ICB in developing countries, a ‘project owner’ is lacking. This means one responsible party who may not carry out the project solely but at least is responsible for the execution and implementation of the health care project. In current procedures, neither the financing institution, supplier, nor the recipient or consultant involved in the construction holds the overall responsibility of the execution of the project. In case anything goes wrong, nobody seems to be liable and accountable.

### *6.5.2 Focus on price instead of quality*

Some respondents indicated that in current ICB procedures, there is too much emphasis on price instead of quality. One of the intended benefits of ICB procedures as described in chapter 3 is that competition leads to ‘best value for money’. However, respondents indicated

that with respect to the procurement of medical equipment, competition leads to mainly price competition. Due to the fact that evaluation is often only based upon price criteria, quality seems to be forgotten. Because suppliers compete each other on price, it often occurs that poor, but cheap, quality equipment is purchased and supplied. It has been stressed that this equipment is often not sustainable in the long run and that especially in the context of developing countries this type of equipment is difficult to maintain. The cheapest product does not mean best value for money.

Moreover, it has also been recognized that in the entire ICB process there is too much focus on keeping the process cheap. For example, for the construction of a tender, consultants are paid badly leading to lower qualified staff. It has been stressed that current ICB process of medical goods and supplies needs a quality injection.

### *6.5.3 Lack of support financing institution*

A frequently mentioned problem is the lack of support by the financing institution. The financing organizations only provide the loan and then in practise do not provide any additional support. One of the interviewed indicated that the World Bank is a contact party instead of a contract party. It has even been stated that recipients (Ministries/project units) are the "loose" component within the procurement equation and that the problem faced is that there is no strong decision-making system locally.

### *6.5.3 Time span*

Although not explicitly mentioned in academic literature, the time span of a tender procedure can be considered as an obstacle towards effective procurement policies of medical supplies in developing countries. Recall from chapter 2 that the prescribed time span between the submission of the bid and the contract award is 90 or 120 days. Sometimes, this period can be extended. Interviews with supplying companies have indicated that in practice, the time between the notification of a tender and the final delivery of the medical supplies can take more than a year. This appears to happen very often. The question was also raised to the interviewed how long it takes to construct a tender document including all requirements and specifications. Nobody knew it exactly but there was common agreement that this could also takes 2 years. In some cases this implies that the time between the decision to develop a health project via a public tender and the final delivery of the supplies required in the health project is between the 2 and 4 years. The interviewed suppliers indicated that it often happens that the time between the contract award and the final supply can take a year because of

problems with payment, installation and administrational regularities. Many factors are mentioned why these processes take so long. Especially in developing countries it often occurs that governments fall and agreements about health projects made with the previous government have to redone with the new governments. Secondly, because of the lack of institutional knowledge of recipients regarding the ICB procedures, these projects can take years from initiation to final implementation and delivery of the equipment.

Suggestions and recommendations to the problems analysed in this chapter will be given in the next chapter, chapter 7.

# Chapter 7. Discussion, Recommendations and Conclusion

## 7.1 Introduction

This chapter will give a clear and accurate overview of all aspects that have been discussed throughout the text and to find an answer to the problem statement in this thesis. The first section will provide answers to the research questions, as defined in the first chapter. Then, recommendations for policy will be provided in which a final answer on the problem statement is given.

## 7.2 Problems statement and research questions

This study was initiated to analyze the problem statement that reads: *How should the international competitive bidding process of health care equipment and services be optimized in developing countries?* Before answering this problem statement, first answers will be given to the research questions.

*Research questions and answers*

*RQ 1: What is public procurement?*

Public procurement refers to activities of governments to purchase goods and services. It requires governments to make decisions what, where, when and how to purchase the required goods and services. Public procurement goes beyond purchasing only however. Two ideologies have prevailed; the free market orientation and the interventionist orientation. This thesis considers public procurement as a multidisciplinary concept where political, economic and social concerns converge and where governments should take societal preferences into account.

*RQ 2: Which procurement methods can be distinguished and what are the differences between different procurement methods?*

This thesis has distinguished open, selective and limited or negotiated procurement. Open procurement, commonly known as ICB, is the mostly applied form. In ICB procedures, all interested companies may submit their bids. Participation shall be limited to companies' capabilities to fulfil the contract. In international procurement, ICB is usually the common method. In negotiated procurement, often referred to as selective or limited procurement, only companies that are invited to submit their bids are allowed to participate. Normally, this procurement method is not applied often and only in exceptional cases, for example when

there is an extension of a contract and in case the total value of the required goods and/or services is below a certain threshold.

*RQ 3: How is a competitive bidding process designed?*

Usually, an ICB process consists of three stages; (1) a preparatory phase, (2) a bidding phase and (3) the contract/execution phase. In the first phase, the bidding document is prepared and the tender document shall be made available to eligible bidders as specified in the procurement notice. Then, in the second phase, the bidding phase starts and suppliers are requested to submit their bids within a certain time period. In the final third phase, the bids are evaluated by the recipient country, normally by means of the tender committee. Finally, in this stage, the contract is awarded to the winning company. In international procedures, it takes in theory between the 90 or 120 days between the submission of the bid and the contract award.

*RQ 4: What is the rationale and background behind ICB in developing countries and what are ICB procedures' strengths and weaknesses?*

ICB procedures are intended to be transparent and hereby providing the best basis to open competition. Open competition in turn is expected to lead to efficiency, 'best value for money'. Transparent ICB procedures should also lead to reduced corruption and the development of domestic supply base.

Also obstacles have been acknowledged in literature. Among them, transactions costs, bureaucracy corruption efforts and a few other concerns are identified as potentially reducing the efficiency of the ICB procedures. Inefficiency of ICB procedures in developing countries may lead to bad or incomplete projects and may hinder the effective spending of development aid.

*RQ 5: What are the results of foreign aid? Has aid lead to development?*

Academic literature has expressed doubts about the effective spending of development aid. The debate is split into the researches saying that development aid has yielded positive results and the researchers arguing that development aid has not yield positive results. Moreover, results on a macro level are contradicting the results on a micro level; an aid-growth link has been difficult to prove but on a micro level, institutions have reported successes. World Bank figures have indicated positive satisfaction of its development projects but on the same time

the World Bank doubts its own sustainability of its projects in the long run; of all projects, only 49.1% appears to be satisfactory sustainable.
More independent research is needed on aid effectiveness, not only about the question whether aid is effective or not but also how the delivery of aid can be improved.

*RQ 6: What are the weaknesses of an ICB process of medical equipment from a practical point of view?*

This thesis has identified a number of additional weaknesses of current ICB procedures of medical equipment and supply in developing countries. First, in the preparatory phase, the greatest problem is a number of troubles related to the specifications of the medical equipment. This leads to various problems further on in the ICB process. In the bidding/evaluation phase; the lack of expertise and knowledge of local authorities, communication and (the lack of) supplier power and problems with the evaluation of the bids have been reported. In the final execution phase, the problem arises with maintaining the equipment and training the right people to use the equipment.
Finally, throughout the whole process, problems with responsibilities and coordination, a too narrow focus on price instead of quality, the lack of support of the financing institution and the time span of the whole ICB procedure have been reckoned as major obstacles towards an effective delivery of medical equipment via ICB procedures to developing countries.

## 7.3 Conclusions/Recommendations for policy

The analysis of the procurement practises of medical equipment in developing counties in this thesis leads to a number of recommendations for policy holders involved in these procurement processes and to a final answer on the problem statement formulated in this study:
*How should the international competitive bidding process of health care equipment be optimized in developing countries?*

1. More institutional support during process; hereby better monitoring and control

It appears that recipients often not have sufficient knowledge to deal with Western procurement practises. Moreover, there seems to be no uniform interpretation of the rules. Many problems have been reported throughout this thesis; problems with the evaluation, with the communication between suppliers and recipients, payment conditions, problems with the interpretation of the tender document etc. Currently, there seems to be no possible pressure from donors. When the loan is granted, the donor takes of hands and responsibilities. The

donor should take a more active role in the process and hereby can act as a strong referee for suppliers and users; hospitals, doctors, etc. There has to be a stronger control how the supply of goods and services has been done.

2. Focus on sustainability: include maintenance, training and pre-installation component

There are considerable problems with the sustainability of the medical equipment supplied via international procurement procedures, especially World Bank procurement procedures. A key factor enabling optimization of aid money is sustainability; there should be a higher focus on sustainability of projects financed and as to do such, following measures have to be taken and followed strictly:

- Emphasis is put on compulsory presence of local after sales facilities/workshop,
- 2 years warranty minimum instead of one
- Include mandatory maintenance contract in tender
- Pre-installation works included in contract: it is the responsibility of supplier to visit the sites and "price" the pre-installation works needed
- Importance of training, manuals in local language

It has been stressed that one of the decisive factors is the lack of a maintenance and training component in the tenders. Suppliers are requested to only provide a one year guarantee period. Sophisticated medical equipment is vulnerable, especially in hospitals in developing countries. A stronger maintenance, training and pre-installation component is needed where maintenance is provided by the supplier for a specified period, for example 5 years.

3. Invest in quality and especially technical expertise

Many mistakes in the tender documents have been reported; technical, administrational and problems with not understood payment conditions. The overall quality of the tender document is to be doubted. The major problem is the lack and/or the quality of the specifications of the medical equipment. Moreover, specifications are often not in line with the needs of the developing country. Mistakes in this first step of the tender process, the construction of the tender document, can never lead to a sustainable project. An investment is required in quality and expertise. Using highly qualified and experienced staff in this first step of the process will certainly enhance the overall quality of the ICB procedures.

4. Clarify evaluation criteria

In current ICB procedures of medical goods and services, evaluation criteria are theoretically set in advance, but in practise the evaluation criteria are of poor quality and not strictly applied. Moreover, mainly price criteria play a role which certainly does not constitute to sustainable health care projects. With respect to the evaluation of bids, the following recommendations are suggested:

- Detailed evaluation criteria should be set in advance which gives less room to subjectivity and hereby;
- it is advisable to set quality criteria and to weigh quality higher than price (e.g. 60-40)
- Again, hereby institutional support and control is needed to ensure that pre-determined evaluation criteria are strictly applied and to supplement recipients with technical knowledge to properly evaluate the bids.

5. Assign a project owner/clarify responsibilities

Coherency between the different phases in the tender process should be improved. In current ICB procedures of medical goods and supplies, for every stage in the process, another actor is responsible. The different phases in a project are split into many smaller phases. The different actors in the different stages of the process are not involved in each others phase which leads to an uncoordinated process. A metaphor can be made with the construction of a house in which the constructors do not communicate with the architects. In the delivery of medical equipment, the result is the fact that equipment is supplied which is not in line with the necessary pre-conditions in the developing country.

There is a need to clarify responsibilities. In this respect, it is suggested to make one actor overall responsible and accountable for the execution of the project. In current procedures, in case of any errors or mistakes, there is no party which can be held responsible. There must be one executing party responsible for the project as a whole. This can either be a consultancy firm or a supplier, as long as there is one clear actor carrying the responsibility of the project. This party can then contractually be held responsible for the total execution of the project.

# Chapter 8. Conclusions, implications, limitations and recommendations for further research

This study offers an analysis of current procurement procedures of medical supplies and goods, and the practical limitations of its application in a developing country context. The practical results are different from the intended theoretical benefits of efficiency and transparency by using International Competitive Bidding (ICB) procedures.

The current study enriches our knowledge and understanding of procurement practises in developing countries. In particularly, it shows that one form of procurement, international competitive bidding, apparently does not have the intended effect when it comes to the adequate supply of medical goods and services in developing countries, too many problems have been identified when current procedures are applied. This thesis states that for the procurement of goods in a technically complex environment as the health care sector, a different approach should be followed, rather than current standard procurement guidelines.

The main recommendation of this thesis is that current ICB procedures of medical equipment our out-dated and need to be reformed. Although theoretically the ICB sounds nice, in practise when it comes to medical equipment in developing countries, a different approach should be followed. A specific procurement facility is required for the procurement of medical equipment and services in developing countries due to its technical complexity and its diversity. Financing (donor) institutions should recognize that the supply of multidimensional medical equipment to developing countries requires a different approach than the supply of dimensional products as for example sand or concrete. It is too easy to straight-line apply the same procurement rules for products in a different environment with a different technical nature. Current ICB practises of medical goods and supplies to developing countries needs to be reformed. Suggestions made in paragraph 7.3 may provide a basis and a start-off point to improve current procedures.

On the other hand, this research has several limitations which have to be considered for this thesis and future research.

First of all, almost all interviewees were Dutch. Although these people are carefully chosen because of their long term experience with the procurement of medical goods and supplies in developing countries, still opinions are asked from a ‘Western perspective’. For obtaining a better view from a developing countries’ perspective, more local people involved in procurement should be included in the analysis.

Secondly, interviews were taken with only two firms; a supplier and a consultancy firm. Although these two firms are fully independent and different of each other, a wider approach including more suppliers might enrich our knowledge even further. Furthermore, because of the involvement of suppliers, a too focused 'supplier perspective' can be the result. Further research could be focused on the users; medical staff. However, although no official interviews with medical staff are shown in this thesis, the author has spoken to a number of doctors, maintenance staff and hospital directors in a number of developing countries such as Mauritania, Ecuador and Nicaragua. The medical staff on average supports the conclusions drawn in this thesis, in the sense that the equipment supplied is often not in line with the needs and not compatible with the infrastructures in the hospitals.

Thirdly, in this thesis, no distinction is made between developing countries. Of course, great contextual differences exist between developing countries. In Senegal, a Sahel country in Sub Saharan Africa faces other contextual factors than in countries more developed such as Argentina, a middle income country in Latin America.

Another limitation of this research is that this thesis has not distinguished different types of equipment. Equipment differs by technical complexity. This thesis certainly does not exclude that current procurement policies might be suitable for some types of equipment. Projects differ by diversity and scope. For example, ICB of the procurement of twenty hospital beds to be supplied in one hospital in Dakar cannot be compared to a comprehensive health care project involving the supply of vast variety of equipment over various sites, for example, throughout Congo.

This thesis has identified a number of weaknesses in current procurement of medical goods and supplies. A more in-depth analysis could take out one of the weaknesses and investigate how this weakness could be improved in current procedures. For example, one of the mentioned weaknesses is the quality of the specifications.

Finally, this study has been qualitative rather than quantitative. Interviewees have indicated that they are anxious about the true effectiveness of current procurement procedures. A quantitative study showing true costs of procurement and true benefits might be useful. Till now, a true cost-effective study of the procurement of medical goods and supplies in developing country has not been carried out. How effective are these procedures in terms of costs and effects? What are the actual transaction costs in such a process? How many overhead costs are involved? These are all costs that should be addressed in the future.

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# Appendices

Appendix I. Questionnaire

1. What are your experiences with ICB procedures in developing countries?

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

3. Which improvements would you suggest?

NB: This questionnaire was used for every interview. However, sometimes the situation required to change the questions slightly.

# Appendix II Summary Results

| | Identified Weaknesses | Director | Sales Agent 1 | Sales Agent 2 | Sales Agent 3 | Sales Agent 4 | Consultant 1/2 | Consultant 3 |
|---|---|---|---|---|---|---|---|---|
| **Preparatory phase** | Specifications | | | | | | | |
| | *Mistakes in specifications/poor quality* | x | x | x | | x | x | x |
| | *Not line with needs* | x | x | x | x | x | x | x |
| | *Not generic but tailor made to one supplier* | x | x | | | | | |
| | *Not constructed by qualified staff with expertise* | x | x | x | | x | x | x |
| | *Old standards* | | x | | | | | |
| | *Difficulties in obtaining tender documents* | | | | | x | | |
| | Mistakes in tender documents | | | | | | | |
| | *Administrational* | x | x | x | | x | | |
| **Bidding phase/evaluation phase** | *Subjectivity* | x | | | | x | | |
| | *Lack of expertise and knowledge of local authorities* | x | x | x | | x | x | |
| | *Problems with evaluation* | x | x | | | x | x | |
| | *Non-objection criteria not clear* | x | | | | | | |
| | *Communication between supplier and authorities* | x | x | x | | x | | |
| | *Bid opening* | | x | | | | | |
| | *Contract conditions* | x | x | x | | x | | |
| | *Time period* | | x | x | | x | | |
| **Execution phase** | *Payment* | x | | x | | x | | |
| | *Shipment* | x | | | | x | | |
| | *(Pre) Installation* | x | x | x | | x | x | x |
| | *Training* | x | x | x | | x | | |
| | *Maintenance* | x | x | x | | | x | x |
| | *Spare parts* | x | | | | | | |
| | *Time period* | | x | x | | | | |
| | *Lack of expertise and knowledge of local authorities* | | | x | | x | | |
| | *Equipment not in line with needs* | x | x | x | x | x | x | x |
| **General througout the process** | *ICB leads to price competition, not quality* | x | | | | x | x | x |
| | *Responsibilities not clear* | x | x | x | x | x | x | x |
| | *Lack of support/control by financing institution* | x | x | x | x | x | | x |

Appendix III Interviews

**Interview 1**

**Director and owner of DRC Medical**

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1. What are your experiences with ICB procedures in developing countries?

More than 25 years of experience with international procurement procedures of donor organizations; mainly World Bank and European Union procedures.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Preparatory phase:

First of all, the problem with the specifications should be addressed. I see three problems with specifications within the tender. First, the specifications are often nonsense. I wonder if the specifications are in conformity with the needs of the recipient country. Moreover, it is doubtful whether some specifications are suitable to the conditions available in the country. For example, sophisticated equipment often requires stable pre-conditions in the hospitals; good water quality for the sterilizers, electricity supply, etc. Often, specifications require supplying equipment from which I consider from my professional background not sustainable for the country. For example, sterilizers require a good water quality. In many hospitals in developing countries, no adequate water supply is available. As a result, sterilizers break down within a year. Or equipment is supplied which is too sophisticated for use in the developing country.

Secondly, specifications are often not in line with the requirements of the funding organization. For example in some tenders of the EU in South America, we have to bid for equipment with specifications which we can only buy in the United States. However, EU tenders are tied which means that we are by contract only allowed to offer the equipment from Europe. How can we then be compliant? Same counts for audiovisual equipment and printing equipment. This is equipment which is not made anymore in Europe, only in Asia, mostly Japan. We can comply with specifications but not with the origin restriction. These examples show that there is no clear vision behind the construction of specifications. If we ask how we

can solve this problem they respond with 'please confirm according to tender document'. There is subjectivity involved hence.

Thirdly, I often see that specifications are made in such a way that only one medical supplier can supply this equipment. For example, sometimes an x-ray is required with such detailed specifications that we all know that only the manufacturer of this specific brand of equipment is the only company which can supply this x-ray. This means that specifications are constructed (on purpose or by ignorance?) in such a way that only for example Philips can win the tender. Suppliers often give specifications of their products to the tender committee so that the tender can be constructed in advance in such a way that only one or 2 companies can win the tender. Because of the technical complexity of the equipment, there are almost no experts available to control. There is almost no qualified supervision, with a good knowledge of the specific medical field. Good specifications must be neutral and objective.

Finally, there is no real standard what constitutes a good consultant to make these specifications. How are these people selected? It often occurs that even doctors make the specifications. Since there is no real quality standard in selecting these people, the quality of the specifications in the tender can be doubted.

Bidding phase/evaluation phase

In this phase, it has to be considered who evaluates the bids of the suppliers. Since World Bank project are 'recipient driven', this means that the people in the developing country evaluate the bids themselves, normally by means of the tender committee. Sometimes external consultants help them in evaluating the bids. The fact that World Bank projects are recipient driven leads to a number of problems.

First, there is the problem of subjectivity. People in the tender committee earn according to local standards and have to evaluate sometimes millions of dollars.

Then, there is a lack of technical expertise and knowledge of these people. Mostly, this type of knowledge is not or not sufficiently available in the country. How can people with too restricted knowledge about medical technology and equipment decide upon approving a contract including millions of equipment or not?

Third, there is no clear evaluation grid. In almost every tender no clear evaluation criteria has been specified. This means that suppliers do not know how their bid is going to be evaluated. For instance, is price the main criteria? Or is compliancy a decisive factor even with a higher price? Or is quality appreciated? Since evaluation criteria are not set in advance, this opens the way to creative solutions in finding errors in bid documents that lead rejecting of bidders.

Moreover, there is no room within current procurement guidelines to distinct major and minor compliancy. For example, tweezers can either be 5 mm or 7 mm. For the functionality, it doesn't matter if this tweezers is 5 mm or 7 mm. However, current guidelines would make this supplier non compliant while it could have been the cheapest or best supplier. But according to current rules, this supplier has to be eliminated. In every offer, it is possible to eliminate potential suppliers in finding arguments pro and con for award of contract to a specific company.

Finally, once the tender is preliminary awarded by the tender committee, this award has to be sent to the World Bank in order to obtain the so-called 'non-objection' principle. This is the final approval before contract can be launched. The criteria for non-objection are not public, if they even exist. Some approval needs a week, sometimes it takes 4 months. This makes clear that there is apparently no transparent procedure that pertained to this approval.

Execution phase

The first problem that comes in once the contract is signed is the payment method in which a letter of credit is normally the preferred method. Again, it regularly occurs that we have to wait half a year till the letter of credit is opened by the tender committee. A letter of credit is a simple commercial activity for bankers but such knowledge lacks in administrations of local ministries. This is simply due to the fact that they lack institutional knowledge how to deal with such a payment method.

Another problem comes in when the equipment is shipped. In international donor projects, goods must be exempted from taxes; this is called a duty free entry. However, as on occasions the acting ministry fails to provide the required documents to allow such a duty free entry, it regularly occurs that containers are stuck in the harbour for a long period. In such scenario always there is a fight about costs that have to be paid for such so-called demurrage charges as the ministry expects the contractor to pay these additional charges.

The equipment can either go to a central warehouse or it has to be delivered and installed at the hospitals. I have experienced the most awkward things. In 1995 we had a project in Chad to supply 12 hospitals. When we arrived in the country and we went to the hospitals, most of the hospitals being 2000 km from the capital through the desert, 5 of them where not even build yet! So we went to the location with the equipment without a hospital! People told us that they were too embarrassed to say that to us before leaving from the capital. Then, we had a dispute with the European Union who did not want to pay us because we did not supply to

the hospitals. I said how can we supply to a hospital when there is no hospital? Solving this case took more than 5 years and this was our last project in Chad!
When it comes to the delivery of the equipment at the hospitals, the following problems occur:

- Pre-installation requirements have not been met. Often, no appropriate electricity network or water supply is available to properly install the equipment. Sometimes, there are even no appropriate sockets. Adequate water supply is needed for sterilizers. These things show that the requested equipment as stated in the tender can never function due to the lack of infrastructure.
- Training. The basic level that is needed to train the people that need to use the equipment is often not sufficient. This especially counts for very sophisticated equipment as laboratory equipment. The equipment asked in the tender is simply too sophisticated for the developing country.
- Spare parts. Spare parts are not purchased and not specified in the tender. This means, once the equipment breaks down, it can not be used anymore while it is a matter of just substituting a simple spare part.
- Maintenance. In World Bank projects, the recipient has the responsibility itself to maintain the equipment. There is no focus on maintenance in the tenders. In the country, there is a lack of engineers or the engineers lack the knowledge to adequately maintain the equipment. The contractor is only requested to supply and to maintain for one year after delivery under warrantee.

In general, in all tenders there is no quality criterion. The only requirement is to deliver compliant equipment according to the specifications set in the tender. A supplier only wins the tender when it is the cheapest bidder. There is no criterion for ‘costs more but is better’. The cheapest product does not mean best value for money. Because of price competition there is no focus on quality. As a result the equipment breaks down quickly. We had to deliver 3500 medical tables in Uzbekistan. We won the tender because we purchased the tables in Turkey for 75 euros a table. In Europe, these tables cost at least 900 euros. You can imagine that there is a great difference in quality between the tables but we won the tender because we were cheaper than competitors. However, we would have liked to propose a higher standard but as told already quality is no criterion. Therefore, the focus is mainly on price which is to our professional judgment not the only focus to take into consideration.

Furthermore, I estimate that the entire procurement process which starts with the consultant assessing the needs of the developing country to the delivery and installation of the equipment takes between the 5 and 6 years. Can you imagine how many costs are involved with all the trips, all missions, hotel costs, administrative procedures and meetings. While the result is poor quality equipment which is often not working and not maintained!! I can imagine that the value of the equipment in the entire process is only 10% of a total budget for the project! All other costs to arrive to the supply of the equipment (overhead, salaries, consultancy costs, mission costs, etc.) are part of the loan the World Bank provides. The entire process is just too expensive for what the results is. How cost effective are these procedures? Cost efficiency is to be questioned. All these efforts and costs to maintain transparency and efficiency have to be compared to the total investment and outcome.

3. Which improvements would you suggest?

I would suggest three major improvements possible within current guidelines of procurement:

1. The World Bank's projects are recipient driven. Because of this principle, the recipient decides upon approving the tenders while lacking institutional infrastructure. There is not sufficient quality control of the World Bank on the recipient country. Recipient driven should not mean however that the World Bank can take their hands of and solely provide the loan. The recipient has to be supported continuously from the initiation of the tender to the execution of the project and the final delivery of the equipment, hence the need of institutional strengthening as part of the project. Also, there has to be a possibility to sanction the recipient when something goes wrong, for example when the tender is assigned subjectively. This makes people responsible. I would give the World Bank a task in controlling and monitoring the tender process and impose sanctions in case of violations of rules.
2. The evaluation of the tender must be clearer. How is the tender going to be evaluated? Is it price or quality? Or a combination? Further, I would suggest rules concerning minor and major compliancy. For instance, in a total bid of high value, it should not be allowed to eliminate a bidder which did not give a picture of a thermometer valued at 50 eurocent.
3. A maintenance and education component has to be included in the projects.

4. A better synchronisation between the medical technology to be supplied and the pre-conditions necessary in the country. The medical sector is complex and is not solely a matter of supplying and buying equipment and done. The procurement guidelines for concrete and sand are the same as sophisticated medical technology while medical technology is way more complex and requires a different infrastructure. Therefore, a specific procurement system must be developed which allows the complex medical environment to obtain its maximum use at lowest cost.

As a final recommendation I would propose that specialized companies (able to deal with complex medical environment of equipment supply) have a more substantial role in the complete process. Appointing one company as a project owner to develop, execute, maintain and give additional support like maintenance, training and institutional strengthening, leads to a very substantial reduction of costs and higher cost effectiveness.
Though that this should mean that transparency, by way of tender procedures, is under pressure, this system should be evaluated in the complex context of the medical systems. As an example of this kind of successes, Dutch government has financed in the past so-called 'ORET' projects which have been very successful. In these projects, there is one project owner responsible for the entire development and execution of the project (including maintenance). This leads to a long term sustainability of the projects.

**Interview 2**

**Product Manager DRC Medical**

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1. What are your experiences with ICB procedures in developing countries?

Almost three years active in international tenders of medical equipment in mainly developing countries. Financing agencies are EU, World Bank and the United Nations.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Preparatory Phase

I firstly need to mention that we as a supplier are not involved in the preparatory phase. This makes it hard to make judgments about this phase. However, I can tell you about my experiences about how we receive the tender documents and consequently tell you how I considerer this phase.

To start off, the tender documents that we get are full of mistakes. I have rarely seen a tender document without errors in it. It seems to me that the consultants who construct the tender dossiers have not sufficient knowledge about procurement to construct these documents. Sometimes we are asked to supply 'a car with 5 wheels', equipment that doesn't in fact exist. The specifications must be generic because of transparency concerns meaning that the specifications should not biased towards products of one supplying company.

Last, we did a project in Malawi. We had to comply with specifications as specified in the tender document. I simply 'copy pasted' them in google. And I directly was redirected to a site of a manufacturing company! These specifications in the tender document were the exact specifications of a product of that manufacturing company!

I also often see is that specifications of one product of company X are simply combined with specifications of that product of company Y. This result is in the combination of 2 products and specifications that do not exist! This happens very often. Consequently, we as a supplier do not understand the specifications since the specifications do not even exist. Sometimes also old standards are used resulting in a product that is not existing anymore.

Besides the specifications that are of poor quality, there are many administrational mistakes in a tender document. In Uganda for example, 2 different Incoterms were mentioned in the same tender document. How can a supplier know which costs should be taken into consideration in the final bid?

Bidding phase

The first problem that I see in this phase is the communication between the suppliers and the local authorities. Because of transparency, all communication between the suppliers and the local authorities, mostly by means of the tender committee, must be in writing. However, this differs per country, some committees you can contact by telephone and request for additional information orally. All tender committees give different information. For example, in Bosnia, it is allowed to just pass by the European Union office where the local tender authorities are situated and in Belgrade you are not even allowed to call them.

This means that bidders get different kind of information which makes the process unfair. It should be transparent and open; every bidder should have equal information access.

Secondly, bidders do not get proper answers to questions related to the tender document. If we as a supplier ask for clarification, the answer is often; 'please comply with the tender document' or any other repetition out of the tender document, at least no answer on our question at all. However, as I have stressed before, these documents are full of mistakes.

Then, the supplier is allowed to pose questions until a certain deadline. However, the period in which the tender committee must answer to the supplier is not specified. As a result, it occurs often that the supplier gets an answer one day before the deadline of handing in the bid. This means that the supplier by no means can incorporate the answer to the questions into its bid. It would be better if there was a fixed date before the tender committee must answer to questions of the suppliers.

Then I see a problem with the bid openings. The openings of the bids are my no means uniform, it depends on the subjectivity of the tender committee how a bid opening is organized. Sometimes an opening is even done by people who have no knowledge about how a bid opening should be done. I was at a bid opening in Brussels for a tender in Macedonia and the members of the tender committee had no idea what they had to do there and which bid prices they should open and read out loudly. I as a representative of a supplying companies told them what the procedure normally as and which amounts they should read out as indicated in their own tender document.

In Indonesia, the bids of the various suppliers included potential costs for installation, spare parts and maintenance. The tender committee however only communicated the total offers of the companies, adding all elements together. However, the bids were only to be judged upon the equipment value. This made the comparison between the different bids of various suppliers impossible.

With respect to the evaluation of the bids, there is again a problem of communication. Of course, because of transparency reasons, the evaluation commission is not allowed to be contacted by suppliers. However, some tender committees you can just call why other committees are very strict in having no contact with supplier during the evaluation phase.

There is always a way to eliminate suppliers out of the tender. One can always find minor deviations in the specifications; one can never be fully compliant. It depends on the subjectivity of the evaluation commission how they deal with minor and major deviations from the specifications. The evaluation commission has a tremendous power and can actually do exactly what they want without any party actively controlling them. Furthermore, the evaluation criteria are not clear at all. What does the evaluation commission see as minor and major deviations?

Generally, I think that the local people in the developing countries who are involved in the tenders do not take responsibilities. Often, they hide behind the foreign consultants who construct the tender and make the specifications. If the foreign consultant makes a mistake when constructing the specifications, at least the local people can not be blamed for making mistakes. Especially in Africa, the people are afraid to make decisions and take responsibilities since they are afraid to lose their jobs. In Malawi our product that we offered in the bid did not exist anymore when we went to the manufacturer. Hence, we asked if another similar product would also be sufficient. The simple answer if the new similar product was allowed took 6 weeks while in the meantime we had to supply. However, local authorities were simply afraid to commit errors and didn't give conclusive answers.

Finally, it is worth mentioning that the evaluation of the bids takes a very long time. The normal period is 90 days or with extension 120 days but regularly this period is even extended. Currently, we even have a bid running in Uganda from October last year! In case of award, we do not have to accept the contract since the tender committee had neglected to ask us for an extension of our bid validity. This could create big problems for them when they finally finish the evaluation.

<u>Execution phase</u>

Again here, the entire process takes a very long time. Between the notification of the contract and the final signing of the contract can already take a substantial time. Suppliers also often have to wait a long time for the first payment. Sometimes, we have not even received the first payment and we are already forced to do our first shipment of products. This means that the suppliers are the parties financing everything in advance and carrying the risk. Suppliers in this respect have no power at all, everything should be done how the local authorities want it do be done.

In Turkey we carried out a project in which we had to supply hospital equipment and furniture over 160 sites. We were required to get a signature of the every person in charge for each single site. You can imagine that no every person is eager to set a signature and it costs the suppliers a hell of an effort to get 160 signatures needed to get the payment. Supplier will have a problem when they are not paid since suppliers have done payments in advance. In the mean time, suppliers have to pay interest costs to the bank which of course are incorporated in the prices of the bids.

Once we deliver the equipment to the hospital, the equipment is repeatedly not compatible with other equipment or with the infrastructure in the hospital. The end user, doctors receive equipment where they did not ask for because the tender committee has made a decision based on price instead of technical compliancy. Moreover, the users do not always know how the equipment works since the supplied equipment is too sophisticated for them. In Malawi, autoclaves were supplied. The doctors did not even know how to open the autoclave since a manual was not included! For the doctors, it took too many steps from the local hospital in Malawi to contact the supplier somewhere in Europe to ask for a manual. As a result, the autoclave is not used and stands idle in the heat and finally breaks down.

Finally, the equipment is supplied without installation and maintenance since it is often not requested. Suppliers are required to provide a guarantee period of one year. In the tenders, it is not asked for maintenance after the guarantee period.

3. Which improvements would you suggest?

    - Include a maintenance, installation and a training component in the tenders. This would certainly enhance the sustainability of the projects.
    - The tenders should be more focused on the needs of the developing countries.
    - Consultants with proved expertise should construct the tender documents. Currently, the tender documents are full of errors and specifications are as

explained sometimes completely nonsense. A poor quality tender document results in a poor quality bid too.

- World Bank should take more responsibilities en should be more critical. The projects are now recipient driven but in practise this does not really work. More World Bank support is needed.

**Interview 3**

**Product manager DRC Medical**

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1. What are your experiences with ICB procedures in developing countries?

I have three years experience in international tenders of medical goods and supplies. The first two years I mainly worked on tenders in English speaking Africa and the last years my focus is on tenders in Latin America.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Preparatory phase:

The first problem is the specifications of the equipment. In 90% percent of the projects where an x-ray is required, solely an x-ray is asked. However, an x-ray can never work without a transformator or generator. In a tender in Ecuador for example, we are required to only supply a number of x-rays. We know however that the electricity network is not well developed. Without supplying a generator, the x-ray will not work since it can not handle electricity shocks or in some cases, there is no electricity at all. In every project in Africa AVR and UPS are needed, because electrical networks do not provide a straight line electricity supply. These instruments stabilize voltages or supply electricity when the local network is not sufficient. However, these instruments are never asked in a tender in Africa and only rarely in Latin America. This will lead to problems with the guarantee and the sustainability of the products.

Secondly, in many projects there is an overall lack of specifications. For example, an x-ray has more than 1000 features. The view width of the x-ray is one of the most important features. In many cases, the view width of the x-ray is not specified. The view width determines what the x-ray can observe. If this is not specified, suppliers will of course supply an x-ray with a minimum view width. What happens is that a product is supplied without actual functionality. An x-ray with a view width of 10 mm is for example completely useless. Supplying these products is a waste of money. In Nicaragua a spectrophotometer was asked without further detailed specifications. Without further technical specifications, the cheapest spectrophotometer is bought in China which can be a machine with absolutely different (and therefore not required) technical parameters.

It seems to me that in the construction of a tender, the true practical situation in the country is not considered. If we want sustainable projects in the health care sector, a complete product

solution has to be supplied. X-rays must for example be supplied with Generator, AVS and/or UPS. You don't sell a bicycle without wheels either. I think that consultancy firms that construct these tenders do not visit the local hospitals. I conclude this because I often see that the end users in the projects (doctors, nurses, etc.) do not know what to do with the equipment. For example, in Ethiopia, in a hospital laboratory equipment was asked. However, this hospital did not even have a laboratory. In whole Ethiopia, there are mainly central hospitals without labs.

Bidding phase/evaluation phase

The first problem in this phase is an administrational problem, namely problems with the contract conditions. Contract conditions are often not consistent with what is mentioned in the tender and moreover the local authorities do not understand the conditions.

For example, one of the conditions is the Incoterms in a contract; the supply conditions. This has to do with which party is responsible for the final supply of the equipment and costs of the supply to the hospitals. DDP (delivery duty paid) means that the supplier is responsible for the supply of the equipment to the hospital and for the costs involved. The supplier pays for all transportation costs and bears all risk until the goods have been delivered and pays the duty, including all local taxes, import duties, etc. DDU (delivery duty unpaid) means that the seller delivers the goods to the buyer to the named place of destination in the contract of sale. The buyer is responsible for the costs and risks for the unloading, duty and any subsequent delivery beyond the place of destination.

However, in a tender document often two different incoterms are mentioned. In one tender document in one certain paragraph (bid data sheet) DDP is mentioned as the appropriate incoterm and in the same tender in paragraph 16.2 of the General Conditions of Contract it says that the supplier is exempted from any additional import duties and costs. What happens is that nobody knows which party has the responsibility for the delivery and which party has to pay the taxes. In Ecuador for example we have both terms mentioned in the tender. Of course, we as a supplier want DDU and the local tender committee wants DDP. This leads to bureaucratic procedures and to a situation in which nobody knows who has the responsibility for what. Besides, the local authorities often do not understand the difference between DDU and DDP and consequently do not know what their own responsibilities are. As a supplier, we are in a difficult position. Then if you decide to go for a court case, you know that is going to be difficult in future projects. The best would be if the common standard would always be DDU.

The second problem in my opinion is the time period between the opening and the closing of the bid. Normally, a bid is valid for 90 days plus an additional month in some cases. This leads to two problems. First, there is room for corruption. In this time period, suppliers and local tender committees can easily meet each other personally and potentially make agreements. Secondly, for suppliers it is not a fair period to sustain prices. Prices must be sustained for almost 4 months which puts great pressure on the supplier. We often need to offer our products in the local currency. In developing countries, currencies can devaluate quickly. Suppliers incorporate this risk in their prices by taking a higher margin. This period can definitely be shortened to a maximum of 20 days. In developing countries, my experience is that if people have 90 days to evaluate a bid, they will start with the evaluation on the eightieth day.

The final problem in this phase in my opinion concerns the rights of the supplier. As a supplier, we are not allowed to pose any questions related to the procedure. For example, in a specific country in Central America, I discovered to a competitor got its products from non-eligible countries. However, we are not allowed to ask for clarification in this phase. This makes the procedures not very transparent. Moreover, if our bid is rejected, we never get insights why our bid has been rejected and the other one accepted whilst from non-eligible origin. After the rejection a tenderer has the right to ask questions, however this is allowed after the award has already been accepted by the awarded party. After receiving the rejection a period of 30 days for receiving answers is granted to the contract authority and therefore after approximately 60 days have passed the award tenderer has already signed the contract and received the prepayment and in practice an award will therefore never be recalled. The only reason every supplier always gets is being ‘non-compliant’. However, one can never be fully compliant and in every tender every supplier has small deviations from the specifications. The procedure would be more transparent if tenderers can pose questions and get reasonable answers to and from the tender committee within a certain time period.

Execution phase

The problems in this phase are related to previous problems I already mentioned. This first problem concerns the fact that local authorities do not always respect and understand the contracts and its conditions. The incoterms are rarely understood and lead to many problems. Moreover, the payment conditions are not always respected. In 80% of the projects, we are not paid on time. According to contract conditions the Contract Authority has 30-60 days

(depending on funding authority) to pay the certain percentage of the contract, however this time-span is respected only in very few occasions.
The second problem is a practical problem related to lack and poor quality of the specifications in the preparatory phase. The specifications do simply not comply to the needs of the final user and the recipient country itself.

3. Which improvements would you suggest?

The first improvement would be a better exchange of knowledge between the financing institution and the recipient country. It would be advisable that tender committees are better controlled, supported and monitored by the financing institution.
Secondly, the communication between the contract authority and the tenderer should be improved. To increase transparency, it would be better if tenderer have the right on feedback and the right to pose questions related to the followed procedure of the contract authority; for example the right to know why your bid is rejected and why another bid of a competitor has been selected. In current procedures one can pose questions. However, these questions are never answered. I suggest incorporating by contractual conditions the right to pose questions and the obligation to answer these question within a specified time period in the procurement procedure. In this way the contract authority has the obligation to answer the supplier making the procedures more transparent.
My third improvement is to reduce the product component in the tender. In current medical equipment tenders, the product component is between 80% and 90%. The remaining part is reserved for preventive & corrective maintenance, spare parts and after sales services. This remaining part should be bigger however. The sustainability of the projects will be improved if a bigger part of the tender is reserved for maintenance and after sales service. This implies however that payment conditions need to be changed. Now, normally 10% it is paid in advance, 80% after delivery and 10% after instalment. When the product component is reduces and the service, after sales and maintenance component is increased this means that the payment period has to be extended to for example 10-60-10-10-10 (last mentioned portions of 10% for each year of maintenance for example). I expect that under these conditions suppliers will be satisfied with lower margins since they get payments in later years, but for services still to be provided, so this puts lesser financial pressure on them. The risk can be diminished in this way and suppliers do not need to incorporate paying risk in their prices.

My final suggestion would be to construct guidelines for the specifications of especially the more sophisticated high-tech equipment. For example, guidelines should indicate that an x-ray in a developing country should always be accompanied with voltage stabilizers and generators. This will certainly improve the sustainability of the projects.

**Interview 4**

**Product manager international finance DRC Medical**

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1. What are your experiences with ICB procedures in developing countries?

I have been involved with advising the government of Mauritania in setting up an international tender for the government of Mauritania in 2006 – although the tender was never published due to bureaucratic slowness and the democratic election process. As an employee of DRC Medical, I travel regularly to countries in Africa and Southeast Asia where I meet with government officials and competitors and consortium partners to discuss coming and ongoing international tenders. Moreover, I have participated in a number of international congresses and forums, such as in the Netherlands, the United States of America and Indonesia, on development aid.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Generally speaking, the ICB procedures sound theoretically right, but put in practise there is coherency problem between the different phases and its actors. What happens in practise is that one group of consultants, appointed by the World Bank, will write a country report, while the next, independent, group of consultants will write a more detailed report on a specific health care situation, e.g., for a particular hospital or province in that country. Another consultant then makes a bill of quantity of the necessary equipment, which will be tendered. A final consultant will then evaluate.

At each phase, consultants are hired independently, because of transparency concerns. Although this indeed does improve the transparency, it also reduces the coherency between the different phases in a tender process. As a result, often the purchased equipment does not match the real needs of the country. I have seen this often.

In Mauritania, for example, a number of incinerators were supplied to various hospitals. Although I do not remember through which international institution, this is a good example of bad planning and lack of coherence between different actors. The local ministry had, all of a sudden, received these incinerators, although the hospitals where they were supplied had not

specifically asked for them. Moreover, some of these hospitals were not even prepared to receive the incinerators, while I saw that in other hospitals, although the ground had been prepared by the hospital management, as the ministry forgot to manage the installation process, as result the incinerators stood idle in the desert wind, and are now ready for dump. Hence, the supply of incinerators here in Mauritania was a complete waste of money.

To my opinion, the problem lies not in the theoretical foundations of a tender process, which has to be transparent. It is the gap between the theoretical idea and how they work out in practice. In developing countries, the way how the tenders are currently carried out is simply not working. I see poor quality equipment and equipment stalled in the harbours for months due to a lack of capacity by local authorities. For example, for a project of the Organization of the Petroleum Exporting Countries (OPEC) for a hospital in Agadez, in the centre of Niger, when the goods were supplied, the hospital had not yet been built. Also, when I visit hospitals, I often hear the complaint by the medical staff that what is delivered, does not correspond to what was asked for, be it that it is of a different brand than the other hospital equipment, or that the quality is inferior. Moreover, when equipment is finally delivered to hospitals, sometimes its guarantee has already expired.

Generally, I think it is a matter of responsibilities. Because for each different phase in a tender process another actor is responsible, nobody seems to carry the overall responsibility of the project. Every actor in the process only executes his or her part of the process.

To improve upon this situation, responsibilities of different actors should be clarified. I particularly think that especially the responsibilities of the suppliers, the local authorities and the World Bank need clarification.

The World Bank is no contract party in current procurement procedures. For example, for a World Bank tender in Egypt for medical equipment, part of the equipment could not be delivered to the final hospitals because the local ministry could not supply a distribution schedule. Although the supplier had taken every step to solve this problem, due to the lack of capacity of the local authorities, final payment could not take place.

This example illustrates the question of responsibility. The World Bank, being no contract party, will officially state its interest in the ongoing situation, but legally, or for policy

reasons, seems unable to do anything. For a supplier, this is also confusing, as it was participating in what it sees as a "World Bank sponsored tender".

A solution would be to make the World Bank responsible for instigating local authorities and suppliers, while the World Bank should have the means to hold local authorities and suppliers responsible for their own parts in the tender and execution processes. Hereby, it would be recommended that the World Bank can sanction local authorities, for example, when equipment is kept in the harbour for months.

The World Bank should take the role of a contracting institute and guarantee the quality of a tender. If a supplier has a contract with a local government, the supplier expects that the World Bank provides some kind of security. However, this does not happen with current procedures. The only task of the World Bank is to provide the loan, and seemingly then shake off all responsibility.

This has also price increasing effects. For example, it is commonly known that in Arabic countries, local authorities often fail to fulfil the final payment of the last 10% project, stating all kind of reasons. What happens is that suppliers calculate this risk into their bids. If the World Bank were to take a more active role as a contract party in this respect, it will certainly enhance the whole quality of the projects.

Another problem is the lack of control and supervision of the World Bank in its procurement processes and the result, i.e., whether and how the goods are installed and used. The World Bank does in fact not sufficiently monitor and control if the supply of goods and services has been done correctly. As shown earlier, hospitals sometimes receive the wrong type of medical equipment, or of inferior quality, or are simply not capable of handling the equipment. As an illustration, in Nema, Mauritania, close to the border with Mali, 2000 kilometres in the desert, optometric equipment was supplied via a World Bank tender of a value worth almost a million euros. However, the hospital did in fact not even have an eye physician!! Moreover, the infrastructure in the hospital was in no way adequate to properly install the equipment.

Also, in some cases I heard personally from medical staff that if they report 'errors' in delivered medical equipment, they feel threatened by the ministry to accept the equipment,

e.g., because for the ministry it is of political importance to develop ‘health care projects’ and spent the yearly budget, or even buy certain goods from a generous supplier.

3. Which improvements would you suggest?

Firstly, I would like to point out that development aid is a very hot topic and seemingly easy to criticize, money seems to be spent unwise or even to be wasted. However, one should not forget that the situation ‘on the ground’ in developing countries is a difficult one. Without agreeing or even accepting, one should try to understand the underlying reasons for corruption – where local people see millions being spent while they cannot afford their children proper education – and incompetence – as civil servants often have to do the work in very challenging environments with minimal tools.

This being said, one should acknowledge the gap in the theoretical framework of tender processes. The theoretical transparency seems to be more important and the practical effectiveness.

I think one of the major improvements would be to increase coherence between the different phases of tender processes. There is definite need to clarify responsibilities. Moreover, it is suggested to make one institute, or ministry, overall responsible and accountable. Currently, the World Bank solely provides the loan and ‘facilitates’ the procurement process. The World Bank should be a contract party instead of a contact party.

**Interview 5**

**Product manager DRC Medical**

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1. What are your experiences with ICB procedures in developing countries?

I work in DRC Medical since 1999 and consequently have almost 9 years of experiences in international procurement of medical supplies and goods. Hereby I have made several trips and visited several hospitals all over the world.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Preparatory phase

The first problem is getting access to the tender document. In World Bank procedures, one must buy the tender document first. Buying the tender document takes a lot of time while the prescribed time period between the procurement notice and the submission of the bids is 45 days. In between the tender has to be bought but it already takes two weeks to only get the tender. We have to call the tender in Zimbabwe for example and ask them for the document. Then, we have to transfer the money to Zimbabwe. Before it gets here and the money is transferred we are already weeks further. Moreover, it costs between the 150 and 200 euro to only buy the tender document. It is an administrative burden to buy the document and companies do not simply buy the document unless they are very sure that the tender has potential to be successful to them. Companies will not buy the tender if the country where the tender is issued is not familiar to them. Hence, the idea behind the ICB rules, promoting competition, in fact is not realized since many companies decide to not engage in certain tenders.

It has to be mentioned that European Union tenders are way better organized and accessible. EU tenders are published on the internet, all information is open and transparent and companies do not have to pay to buy the tender document. The same should count for World Bank tenders; they should be published on the internet to improve the access for the companies.

The second problem concerns the tender documents. There are many mistakes in the tender document. As a supplier, we can ask technical, administrational or questions about the payment conditions but we get the answer often only a few days before closure of the tender.

In this way, we can never incorporate relevant information in our bids. In EU tenders, clarifications as result of questions are published on the internet exactly 11 days before closure. In this way, all information becomes transparent and every company has equal access to information and there is sufficient time left to incorporate the information in the bids. In World Bank procedures, however, questioning and answering from suppliers to the tender committee should be improved. There is no fixed date in World Bank procedures before questions of suppliers should be answered. The time period now is 45 days in which the tender document must be purchased, the bid be prepared and questions about the tender have to be answered. 45 days to me seem too short to deal with all these issues.

The mistakes in the tender dossier are of technical, logistic and administrational nature.

First, the specifications are often lacking, of bad quality or not sufficient at all. For example, it often occurs that an autoclave is required but without further specification if the autoclave must be horizontal or vertical. This leads to different functionality.

Then, there are mistakes with a logistic nature. Sometimes, the tender document says that the equipment should be delivered and installed over various sites. But then, in the same document, no distribution list is included where the equipment should go to. This is of importance when we have to make our total bid.

Usually, there are many administrational errors in the tender documents too. For example, payment conditions are often not clear or they are wrong.

Finally, it has to be stressed that the delivery time as specified in the tenders is in fact not conform reality. Delivery time in tenders is usually 90 days which is most of the time just enough if both parties fulfil their responsibilities in due time. Sometimes the required delivery delay is totally not realistic; for example a project in Indonesia, EU121936, and delivery to 114 sites in 60 days! Te trip only from Europe to Indonesia costs half of the delivery time let alone the production time, going through local customs (!), delivery throughout the islands and installation!!!

In this case, we asked clarifications and requested an amendment on the matter. We were very interested to participate in this tender but we could not realize a 60 days delivery. We exposed the problem to the project unit and asked for a clarification of the delivery time matter as urgently as possible as to enable us to start the bidding process as soon as possible: Clarifications allowing 120 days delivery (and therefore acknowledging their mistake) was published 27/10/2005, closing date was 02/11/2005, obviously we could not participate anymore.

Generally, for a supplier, there are so many costs involved to even make a bid. Therefore, suppliers prefer the projects for which they can potentially have higher margins, cherry picking the potentially more profitable projects. We for example do not apply for tenders with a small total value since these smaller tenders will not even out our costs. Consequently, for some tenders there are not even sufficient competitors while the minimum requirement is to have at least three bids from three different suppliers according to World Bank guidelines. Then, a re-tender is needed. Can you imagine how many costs are involved?

Bidding phase

The first problem is that in some tenders there are more than 50 bids from which only 5 or 6 conform to the criteria. Can you imagine how it in practise works in a developing country if first 50 tender documents must be copied, sent to places all over the world and finally evaluated? In Ethiopia, we participated in a tender where over 50 bids were submitted. This leads to a huge administrational burden. It would be better if the World Bank sets clearer pre-qualification criteria, criteria for a supplier to even participate in a tender. In this way, the non-capable, cheap suppliers are kicked out which leads to a lower administrational burden. There are so many costs involved; we have to keep in mind that at the end it all is development aid which needs to be spend wisely.

Another problem is subjectivity. The World Bank should in this respect take a more active role and be more supportive. The recipient country can do whatever it wants and without a better control of the World Bank, the money doesn't come where it should come. We as a supplier have not where to go, there is no external independent actor in the process, the recipient can do whatever it wants.

Decision makers in developing countries are generally not bothered at all if a health care project is successful or not. Their only concern is whether they can profit from the project themselves. It often occurs that an extremely cheap supplier from for example India is selected with a higher commission included for them while we supply more expensive but better quality products without any commission. Hence, in practise it does not work to give the developing countries full autonomy with respect to the tender process, more support and control is required. The intentions of the ICB procedures are good but we should keep reality in mind; a secretary will of course provide inside information about the tender or will sent the tender when she is paid 500 dollars additionally with a wage of 50 dollars per month. The good intentions are not in line with the reality.

Then, there is a lot to do about the evaluation criteria of a tender. Although the evaluation are in theory set in advance, the recipients never really take these criteria into consideration when evaluation the bids. There is only one evaluation team and the evaluation criteria are interpreted in 1000 ways which makes them very subjective. We as a supplier do not even look at the evaluation criteria as set in the tender document since we know that they are often not applied, we just make sure that we supply according to specifications. Now, evaluation is almost always based upon price criteria. There should be more concern for quality criteria.
Finally, the knowledge of the supplier is not incorporated in the process. We as a supplier have a lot of knowledge about the equipment and about which equipment is suitable under specific conditions. However, our only task is to supply the equipment and then we are done. Our knowledge could be used in a better way.

Execution phase

First of all, there is not sufficient focus on training and maintenance. As supplier we are only asked to provide a guarantee period of a year, and then we are no longer involved in the project. The supplier has no responsibility to maintain the equipment in the long run. After one year the equipment breaks down and the knowledge is often not available to maintain the equipment.
From a supplier perspective, there are always payment problems. It can takes months before we are paid. The recipient does not always stick to the contract. The supplier has nowhere to go; we can not go to the World Bank since they do not see it as responsible. The recipient has all the power and can make its own rules.
Then there is always a problem that the supplied equipment can not be installed since there is no electricity, no socket or no water supply. We have experienced even some cases in which we had to supply to a non-existing hospital. Again, we have to take it for granted and we have nowhere to go.

3. Which improvements would you suggest?

- I would suggest modernizing current procurement processes of the World Bank by for example publishing the tender documents on the internet and organize some kind of auction bidding. Especially for the projects of little value it would be more economical to publish the tenders on the internet instead of all administration and costs involved

of getting the tender document on the right place. Donors should make tender documents easily available and free to all potential bidders (=downloadable).

- Improve the quality of the tender document and especially the specifications. Over subject on how important it is that consultants/clients write correct and general specifications: I remember an anecdote from somebody from company EPOS, a German consultant, EPOS had to write specifications for a tender: when describing 3 ultrasound in a tender for 3 small health centers somewhere deep in Africa, they used by mistake the word color , nobody all throughout the process saw the mistake of questioned this; color ultrasound of 50.000 euro each were delivered, and nobody could use them because they were too advanced ….what a shame). Suppliers/bidders should be able to use their knowledge to retrieve these types of mistake through the clarification round.

- Include installation and maintenance component. Hereby a solution might be to include more supplier knowledge in the process. For example, a compulsary site visit of a supplier to see how the infrastructure of the hospitals is to install the equipment could result in a better coherence between the supplied equipment and the infrastructure. In Mauritania the problem was that sealing was not high enough to hang such lamps The German development bank, the KWF, has other rules concerning tendering of medical equipment. In their rules, suppliers are obliged to include suppliers are obliged to include a minimum of 2 years, and sometimes up to 3, 4 or 5 years maintenance component into their bid. This makes the tenders more complex and you also see that in these tenders there is less competition. But the projects are certainly more sustainable, the World Bank should look at these projects.

- Donors must promote payment terms which are fair and acceptable to bidders! Unfair payment terms can bring down level of competition because they sometimes do not allow all companies to participate; the worldwide tendency of donors guidelines enables local project units to pay most of the costs only after reception of goods, which leaves suppliers pre-financing their projects for a long period of time (average 5 months) including all risks involved. One example: for projects under the African Development Bank guidelines: only 20% of amount contract can be claimed as

advance payment before goods are receptioned, this would scare more than one good willing bidder having to deal with a developing country sometimes in unstable politic context, under these fully risky payment terms. It makes it even less interesting to participate knowing that the BAD would not even back you up in case the client would at once hold payments. Currently by WB and IDA tenders, 90% of total contract amount is paid when goods are shipped which is good for the supplier and also for competition level in the end. But with other donor, and namely under EU tenders you have to first ship the goods and then wait a minimum of 60 days to receive first payment of 60% (and they call this 60% first installment an "advance payment"), of course this does not even cover the costs of manufactured goods which in most of the case are already paid to the manufacturers by the supplier/contractor: the supplier is pre- financing which is unfair.

More World Bank monitoring and support in its projects. This will certainly enhance the sustainability of the projects. In current procedures, the World Bank is only the provider of the loan and then takes of responsibilities:

1. Donors should back up suppliers in case of dispute and act as a strong referee: Beneficiaries (Ministries/project units) are the “loose” component within the procurement equation; problem faced is that there is no strong decision-making system locally; question: can donors influence this? Answer is no. There is apparently no possible pressure from donor (not possible to pressure on money because when loan is granted, it is not the donor's money anymore, even though funds transfer remains under Donor control). This leaves suppliers with (not calculated) high bills because project will not pay for them whereas it is their responsibility. This is for instance the case for delays, demurrage and other costs paid by suppliers when projects is responsible for customs procedure, and do not proceed; Or when pre-installation works are not ready/done by projects, suppliers have again to pay if not project is delayed and therefore their payment; Or when nobody wants to take the responsibility for signed acceptance certificates etc; or if Donor do not wish to intervene, then why not create a contingency fund as to pay back suppliers when they face costs due to purchasers not fulfilling their obligations ex. Pre-installation works).

2. Donors should guarantee fair and transparent evaluation by settling a system to avoid any kind of external influence upon evaluation results. For instance local evaluators, should be assisted by WB officers which tasks would be to make sure that evaluators are strict on compliancy to tender requirements during evaluation (administrative requirements e.g. experience in similar/comparable procurements and financial picture as well as technical requirements).

**Interview 6 and 7**

**Senior Partner AMPC bv**

**Health Consultant AMPC bv**

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This interview was taken with two people simultaneously.

1. What are your experiences with ICB procedures in developing countries?

AMPC bv is an International Health consultancy firm operating in the health care sector in developing country for almost 30 years. We have constructed several tenders for medical equipment for EU in Lebanon, Madagascar and Mauritania. Besides, we often act as an agent for supplying companies in the field of international tenders.

2. What are the weaknesses of these procedures in the (1) preparatory phase, (2) bidding phase and (3) execution phase?

Generally, before kicking off, we would like to start with an example what in our opinion clearly demonstrates the problems with ICB procedures of medical equipment. A couple of years ago, the EU requested AMPC to construct a tender in the Palestinian Refugees Camp for the development of paramedical schools. We were hired as a project developer and we had to determine the medical needs and make a project description. This resulted in the construction of the tender document including all specifications according to EU regulations. However, once we finished the tender document, we were thanked, paid and that was it. We had no influence in the further tender process! Since we exactly knew what the needs were and we constructed the specifications, it would have been useful to involve us in the further tender process. However, according to EU guidelines, because of transparency concerns, in each different phase of the tender process, another party is involved responsible for that specific phase. This means that there is no party which has the total responsibility of the project. Responsibilities are cut in different phases. In all projects, there is no general owner of the project. This means that nobody in fact is responsible for the entire project. We were kicked out after the construction of the tender but the same happens with the other involved parties in the following phases. We think that if there would be one project owner, from the construction of the tender to the final delivery of the equipment, this would solve 80% of current problems.

After we were eliminated out of the process in Lebanon, we got a phone call from the EU. They were not able to evaluate the bids because of the technical complexity. They simply did not have the knowledge to see whether technical specifications were according to the tender document. They asked me again to support them in evaluating the bids (although in fact this wasn't allowed). But here is the second problem which I see in these ICB procedures; there is no sufficient technical knowledge. People who evaluate the bids are not sufficiently qualified, it doesn't conform the complexity of health care. Evaluating tender bids with a high medical equipment component is a very difficult task and requires expertise. However, the local people who evaluate the bids in current ICB procedures on average are not sufficiently qualified to evaluate a complex bid. I would recommend using qualified experts instead of a local 'expert' with no proven technical knowledge.

In a hospital in Madagascar where we were involved in the construction of the tender I saw the same problems. A hospital had to be build and finally equipment had to be delivered and installed. In the preparation phase, architects made a plan how the hospital should look like. In the second phase, the hospital was constructed. In the second phase however, the constructors had nothing to do with the architects no more since architects were not involved in the second phase of the project because of ICB guidelines. In the final phase, the equipment was delivered but again the constructors were not involved in this phase. This means that the supplier and the constructor do not communicate. Suppliers didn't know how the hospital was build and this lead to problems concerning the installation of the equipment. Where is the water supply? Where is the electricity supply? Infrastructure is not on the right place where is should be for instalment. Current ICB procedures do not allow for such an integral approach; every party is concerned with its own phase or bid and the procedures do not allow for any communications between the different parties in different phases of the project. Compare this situation with a housing project without one project developer keeping the final goal in mind.

However, I do not say that ICB for medical equipment in developing countries can not function at all. It can function but only in case that on 1 or 2 locations one type products need to be purchased. For example, it can work if 20 ECG's have to be delivered to 1 or 2 hospitals.

Then we see a problem with the specifications of the medical equipment. The specifications clearly need to be improved. But again, this is a matter of letting the right qualified people constructing the tender. In ICB procedures, everything has to be done cheap. World Bank and European Union consultants are paid lower than market conform salaries. This leads to lower qualified staff. This again leads to poor quality specifications. Thus, you can see that already

in the first step of the tender process, it goes wrong. Poor specifications will have its influence on the rest of the tender process, evaluation becomes more difficult and the final delivery of the equipment is of poor quality too. The better the specifications, the better the evaluation and the better the final project.

Specifications are hard to evaluate and monitor, especially in the health care sector. In the evaluation, one has to look at the functionality of the specifications, not if the specification is minor deviating from the specification required. This requires a lot of time however. In current evaluations, lawyers only look at if the procedure has been carried out in the right way, according to the rules. Procedures are focused on procedures. The intended benefits are in principle good. But in current procedures there is no room for any deviation which makes the procedures very rigid. However, it must be mentioned that when in current procedures quality is to be evaluated to, this gives room to subjectivity. In World Bank procedures, there is no room for flexibility, they are completely rigid and rules are focused on rules.

In general, in the entire tender process we think that there is a tremendous emphasize on price. Everything has to be done as cheap as possible. Not only the consultants are paid poorly, also the evaluation of the tender is based upon price considerations. The cheapest compliant bid wins the tender. However, the cheapest bid is not always the best quality bid.

3. Which improvements would you suggest?

First of all, we would say that in the process as a whole, there must be invested in quality, not only in price. The construction and the evaluation of a tender should be done by exerts and better qualified staff. Also, other criteria than price should play a role in the final contract award.

Then, in some way, in health care tenders in developing countries, there has to be one ‘project owner’, a party or person who keeps the end goal of the project in mind. In current ICB procedures, all different phases in a project are split into many smaller phases in which everybody carries responsibility over its own particular task, there is no party carrying the responsibility of the project.

Finally, we would suggest a more integral approach in health care projects in developing countries.

**Interview 8**

**Director International Health Consultant**

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1. What are your experiences with ICB procedures in developing countries?

I have worked for almost three years as an International Health Consultant. We only work in the health care sector in developing countries were we develop medical projects for the European supplying companies. As a consultant, I have also constructed tender documents according to World Bank guidelines. My main field is Africa were I have executed and followed projects in Senegal, Niger, Madagascar, Morocco and Mali. In all these countries, I have visited several hospitals in which equipment was delivered via World Bank procedures.

2. How do you consider the quality of these procedures?

In 18 out of the 20 hospitals that I have visited in Africa the same pattern can be seen. Medical equipment delivered via ICB procedures is either not working, stands idle or is broken down while nobody knows how to repair it.
To come with an example, I just got back from Senegal where I visited some hospitals throughout the country. Recently, there had been a World Bank project in which echo equipment of Philips was delivered over multiple hospitals throughout the country. I have seen that none of these echo equipment included a dvd player and burner which makes it impossible to burn the photo's. This means that the photos could only be interpreted from the screen. In none of the hospitals a complete echo machine was supplied. Hospitals could not go anywhere to make a complain or to let the equipment fixed. Nobody seems to be responsible. It is not the fault of the supplying companies, it was just a mistake of the procurement procedure which did not specify the echo equipment with an including dvd burner. As a result, none of the companies included one and the echo equipment is virtually useless.
I saw the same in Senegal with mammography equipment from Italy. In none of the hospitals the mammography worked. It was even still in plastic. The mammography did not include energy protection which is especially relevant in African countries where the electricity supply is volatile. The equipment could not be installed since without energy protection it would break down within a week. Hospitals were asking for energy protection but did not know where to go.

In Madagascar I saw the same with x-ray equipment which wasn't even installed and still in plastic because something was still lacking needed to install the equipment properly. These examples I give are not rare. It is not the fault of the companies; it is rather a fault in the way how this equipment is delivered.

3. What are the weaknesses of these procedures and how could the procedures be improved?

First of all, in the very first phase of the process, in the design of the tender, it already goes wrong. The World Bank hires consultants to construct a tender for the delivery of medical equipment. These are not big specialized companies but rather single persons working alone. These are mostly either very young people with not much experience or old retired men who see it as a nice task besides their retirement. I do not know why but these people get paid very little. I highly doubt if these people have the knowledge and if these people are capable of constructing complex technical bill of quantities needed for the supply of medical equipment. As mentioned before, the tenders often lack technical specifications needed to install and operationalize equipment properly. The specifications of the tenders are simply not sufficiently comprehensive. Next to that, the consultant designing the tender is not involved in other parts of the project. The consultant constructs the tender, gets its money and is kicked out of the process.
Secondly, the tenders are almost always divided into different small parts, lots. Sometimes a lot within a tender only consist of the supply of two x-rays. The reasons behind this is that transparency that will lead to higher competition and better prices. In the health care sector this means that a comprehensive health care project is divided into different parts. For example, one lot for the x-rays, one lot for the beds and a separate lot for mammography related equipment. Every lot goes to a different supplying company. This means that in one hospital sometimes equipment is delivered from several supplying companies. Mostly, the result is that various equipment is not compatible with each other and once it breaks down it is hard to trace where the equipment came from. One health care project in this way is completely fragmented and uncoordinated. Moreover, every company is responsible for its own supplied part but there is nobody who is responsible for the coordination of the project as a whole. Consequently, the hospitals in the developing countries have nowhere to go when something happens with the equipment since there is not clear and not traceable who is responsible for what part of the project.

Moreover, the supplying companies have not responsibilities at all in the procurement processes. The only responsibility suppliers have is to deliver the equipment. Once the local hospital has signed that the equipment is delivered, the supplier is done.

Thirdly, the international procurement guidelines do not include a maintenance and an educational/training component. Medical equipment is sophisticated and complex and especially in the context of developing countries has to be maintained. However, the tender does not require that the supplier repairs the equipment when it breaks down. Moreover, the supplier does not have to install the equipment; they only have to deliver it. Hospitals in developing countries do not have the know-how to maintain the equipment and often even lack the knowledge to install the equipment in an adequate way. Also, the equipment is often supplied without spare parts which means that once the hospital gets out of spare parts, the equipment becomes useless. There is no training component required neither. Medical equipment is often complex and users have to be trained and educated how to use it. Since guidelines do not prescribe this component to be included in the final offer, supplying companies do not include such a component. Current guidelines are only focused on the products itself, not on the maintenance or sustainability.

Fourthly, one of the intended benefits of procurement is the promotion of competition. Consequently, supplying companies compete each other heavily on price. This means that only the absolute minimum standard of equipment is offered. Medical equipment is bought in China with a very poor quality. World Bank procedures lead to the fact that only the cheapest medical equipment is supplied. The evaluations of the offers illustrate this fact. The first criterion is if the supplying company is intended to conform according the specifications as specified in the tender. Then, all non complying companies are kicked out of the process. From the remaining companies, the tender is assigned to the company which has the cheapest offer.

Finally, there is no proper control on the delivery of the equipment. Once the local hospital in the developing has signed that the equipment has been delivered, everybody takes off responsibilities. The hospital director in the developing country has to sign whether the equipment has been delivered but there is no external control if the equipment is delivered as it should have been delivered according to the contract. Additionally, it also occurs often that hospital directors are bribed with a few hundred dollars to sign that the equipment is delivered properly.

To improve upon current situation, health care projects should be more comprehensive. There must be a shift towards integral projects whereas current guidelines are mainly product focused. A maintenance and a training component must be included in the tender. Furthermore, responsibilities should be clarified. There must be one executing party which is responsible for the project as a whole. This can either be a consultancy firm or a supplier, as long as there is one clear actor carrying the responsibility of the project. The supplier should then contractually be held responsible for the total project; not merely the supply of the equipment. If there is a consultant involved in the project, he/she should also be involved in the entire project; not just in the design or in the evaluation. In this way, he/she can be held responsible in case anything goes wrong. In current regulations, to me it appears that there is no clear actor and responsibilities are subdivided. Suboptimalization of responsibilities should be prevented. In this respect tenders should not be subdivided into different small lots; this also leads to a subdivision of responsibilities. There must be one big health care project with one or two parties held responsible for the execution of the project.
The Dutch government recently launched a new instrument which looks better to me than current ICB guidelines in the health care sector. The industry (suppliers, consultants, doctors, universities) can design their own health care project in a developing country. Company X can for example design a project focussed on mother and child care in Niger. The project will include the supply of goods and services but will also include an after sales service, maintenance, training and capacity building. There must be one party which is responsible for the execution and the design of the project. Then, once the idea has been approved by Dutch government, the process as a whole must be tendered; not just small parts of the project.
This means that the idea comes from the industry and that the financing party, in this case the Dutch government, approves the idea or not. This differs from the ICB guidelines in the sense that the industry designs its own project instead that the financing institution designs the project and makes the specifications.

Secondly, if I look at current ICB guidelines, these are all the same for different sectors. The same rules apply to construction as to education and health. The health care sector in developing countries is a very specific and vulnerable sector. Health care involved high tech equipment and moreover requires a significant maintenance and training component. I would pledge for different guidelines for different sectors.
It appears to me that ICB rules are designed by lawyers who have no practical knowledge. The ideas behind ICB might sound nice, but in the context of health care equipment in

developing countries, equipment is stripped and only the minimum standard of equipment is supplied. The supplied equipment is of very poor quality because suppliers are forced to supply their products as cheap as possible. Current rules and regulations do not only lead to cheap products but also to very poor quality products which especially in the health care sector is devastating. Suppose the market of cars is tendered. The tender only specifies that the car must have a motor and four wheels. Of course, car suppliers will buy a car of TATA steel in China for 1700 euros. High chance that this car will not sustain as long as a Volkswagen or an Audi. It will also be more difficult to get spare parts out China when the car breaks down. The same happens with the supply of medical equipment in developing countries.

**Interview 9 with Mamadou Konate**
**Sales Agent in Mali DRC Medical**

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**NB : Because of language barriers this interview was taken by email. Answers were not sufficiently comprehensive according to the author of this thesis. Therefore, it was decided to not include this interview in the summary of the results in this thesis. However, views and opinions were nevertheless important and taken into consideration.**

Expierences:

J'ai une expérience de 21 ans dans les appels d'offres internationaux à titre personnel et en tant que agent de représentation d'une société internationale. Ceux qui participent aux appels d'offres internationaux au Mali sont: les autorités, les représentants de tous le soumissionnaires qui le désirent, le représentant de la réglementation des marchés publics et parfois le représentant de l'organisme de finacement exrérieur (par exemple Union européenne).

Weaknesses:

- Les appels d'offres sont surchargés de trop de procédures administratives lourdes qui peuvent empêcher des fournisseurs valables à soumettre des offres et les gagner.
- Les faiblesses résident dans l'évaluation des critères techniques des offres qui ne permettent pas de distinguer les vrais professionnels des affairistes et des amateurs.
- La maintenance et la formation sont très rarement appliquées. En 21 ans d'expérience je n'ai jamais assuré un service après vente et la formation alors que cela était prévu dans le dossier d'appel d'offres et le contrat. L'exemple le plus frappant est les appels d'offres de matériels médicochirurgicaux que je fait de plus de 20 ans. La procédure ne permet pas refuser les les soumissionnaires non professionnels et le mauvais matériel fourni par ces non professionnels fait que les Projet ne durent pas longtemps. Ici, les prcédures sont blâmer car elles sont administrativement lourdes et pas très transparentes.
- La transparence est rarement appliquée et le dossier d'appel d'offres ne permet pas de dire officiellement pourqoi un soumissionnaire n'est pas retenu. Donc, le système n'est pas efficace car il ne garanti pas au meilleur de gagner.Pour cela les Projet sont sans impact durable car un mauvais service a été fourni.

Improvements:

- Il faut simplifier d'avantage les critères administratifs dans les appels d'offres internationaux (par exemple ne plus exiger les bilans annuels), et procéder des préqualifications permettant d'écarter les non professionnels.

*(évaluation)*

6. Ce sont les autorités administratives et techniques publiques qui procèdent à l'évaluation des offres sur la base des critères du dossier d'appel d'offres. Le principal responsable est le représentant du service public qui a lancé l'appel d'offres.