ASSESSMENT OF PROCUREMENT PROCESS OF CARRIAGE REHABILITATION PROJECT AT SAIDPUR WORKSHOP IMPLEMENTED BY BANGLADESH RAILWAY BASED ON KEY PERFORMANCE INDICATORS (KPI)

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A thesis submitted to the Department of **BRAC Institute of Governance and Development** in partial fulfillment of the requirements for the degree of
MASTERS IN PROCUREMENT AND SUPPLY MANAGEMENT

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Declaration

It is hereby declared that

1. The thesis submitted is my/our own original work while completing degree at Brac University.
2. The thesis does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The thesis does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I/We have acknowledged all main sources of help.

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Approval

The thesis/project titled “Assessment of Procurement Process of Carriage Rehabilitation Project at Saidpur Workshop Implemented by Bangladesh Railway Based on Key Performance Indicators (KPI)” submitted by

MD. HABIBUR RAHMAN (Student ID: 15282012) of Fall, 2015 has been accepted as satisfactory in partial fulfillment of the requirement for the degree of Masters Procurement and Supply Management.

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Abstract/ Executive Summary

Government organizations has a significant share in the economic activities in the developing countries. Hence, establishing a specific structure of government procurement has become so important for a country like Bangladesh. In this connection Bangladesh government has established an act named “Public Procurement Act-2006” and guidance rule named “Public Procurement Rules-2008” for the procurement of government, semi-government, autonomous and semi-autonomous bodies using public fund. Afterward, Bangladesh government has established some KPIs to compare and evaluate the procurement performance of the organizations compared to the act and rules.

This study is about the evaluation of effectiveness of procurement process in Bangladesh government. For this reason, a revenue funded project of Bangladesh Railway is studied here which was executed by Saidpur Railway Workshop. This is expected that this study would help to find out the barriers for effective procurement and improve the system.

Keywords: Procurement, Bangladesh, Government, KPI

Dedication

Dedicated to my loving parents

Acknowledgement

I would like to take the opportunity to express my heartiest gratitude to my supervisor Dr. Nasiruddin Ahmed. Without his excellent guidance and supervision this study could not be completed. I also want to thank all the learned Faculty members of BRAC Institute of Governance and Development (BIGD) for their valuable opinions in different aspects of this study. I am indebted to all the officials of Saidpur Railway Workshop, Bangladesh Railway especially to Mr. Nur Ahmed Hossain, Divisional Superintendent of Saidpur Railway Workshop, Bangladesh Railway for their cordial help during data collection. I am especially thankful to Mr. Zahirul Islam, BIGD official, for his assistance and guidance.

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List of Acronyms

ADB	Asian Development Bank
COS	Controller of Stores
CPTU	Central Procurement Technical Unit.
CSS	Chief Controller of Stores
IFT	Invitation for Tender
KPI	Key Performance indicators
NOA	Notification of Award
PPA	Public Procurement Act
PPR	Public Procurement Rules
TEC	Tender Evaluation Committee
TER	Tender Evaluation Report
TOC	Tender Opening Committee
VFM	Value for Money

Glossary

Thesis: An extended research paper that is part of the final exam process for a graduate degree. The document may also be classified as a project or collection of extended essays.

Chapter 1

Introduction

1.1 Background

In a developing country like Bangladesh Government is the key player in national GDP. As, private sector has not been developed to that extent, government expenditure is a significant part of the overall economy. As a result, government contracts are the main source of income of many private organizations. Thus, the growth of overall economy depends on the effective procurement process of the government. The government has the opportunity to distribute the wealth equitably to all segment of the citizens through formulating and implementing the procurement policy. The government can also patronize the local organizations. Moreover, the government expends the public fund. Hence, it is its duty to establish a process that ensures the most efficiency in the process and equitable outcome to all of the citizen.

In earlier days there were no unified specific rules for all the departments of Bangladesh Railway. Departments had their circulars time to time in a scattered way. As a result, there were ambiguities and dissimilarities in the procurement process. It was different for different departments. Mostly, the sole authority of procurement was delegated to the executive and the decision was dependent on the conscience of that person. Thus, the efficiency and outcome of the procurement process depended fully on the person (Executive). Then, the government realized the necessity of a unified and structured procurement process. Asian Development Bank (ADB) and World Bank also had suggested to formulate a regulation to guide the procurement system. After few years of research Bangladesh Government had passed “Public Procurement Act (PPA)-2006” in parliament, which is the base of government procurement in Bangladesh. After few years, Bangladesh government has formulated rules

named “Public Procurement Rules (PPR)-2008” based on Public Procurement Act (PPA)-2006. Bangladesh government has also formed a government body for the explanation, implementation and technical support for government procurement in Bangladesh named, “Central Procurement Technical Unit (CPTU)”. After formation, Central Procurement Technical Unit (CPTU) has prepared tender documents, different forms and established some Key Performance indicators (KPI) to evaluate the efficiency and performance of procurement process.

Bangladesh railway is one of the largest service organization of Bangladesh Government. It also expends a significant portion of the national budget of Bangladesh Government. As a bureaucratic organization Bangladesh railway has slow decision-making process. It has a wide network throughout the country. As a result, it has different operation and management centers in different location. From the procurement perspective the system of Bangladesh Railway is complex. It has a procurement department named “Stores” which practices a centralized procurement system. All the procurement of this stores department is conducted in two location; one in office of Chief Controller of Stores (CSS) and other one is Controller of Stores (COS). This department procures, stores and distribute the materials required in Bangladesh Railway. In addition to Stores department all the executives procure individually to fulfill their local needs. Stores department basically deals with material supply; on the other hand, the executives procure mostly the works. As a result, a mixed structure of centralized and decentralized procurement has been established in Bangladesh Railway.

Saidpur workshop is a carriage and wagon repair and maintenance workshop of Bangladesh railway. This workshop conducts the maintenance of all the carriages and wagons running in Western zone of Bangladesh Railway. Sometimes it outsources the repair work to third party.

One of its largest projects was “50 BG and 50MG Carriage rehabilitation project”. This project was taken to reduce the backlog of carriage maintenance in this workshop. Procurement process in this project represents the procurement system of Bangladesh Railway. Hence, KPI based assessment of this project will project the actual scenario of procurement system in Bangladesh railway.

1.2 Objectives

This dissertation has been proposed for finding the actual scenario of procurement procedure in Bangladesh Railway. The central question is, "How efficiently Bangladesh Railway is executing their procurement from the view of Public Procurement Rules (PPR)-2008?"

To get the answer it is required to do the following tasks first.

1. To examine the procurement and contract management practice in "50 BG and 50MG Carriage rehabilitation project", executed by Bangladesh Railway.

2. To analyze the efficiency of procurement process practiced in "50 BG and 50MG Carriage rehabilitation project" from the perspective of Key Performance Indicators (KPI) that was set by Central Procurement Technical Unit (CPTU).

The answer of the central question above will focus light on the present scenario of procurement process practiced in Bangladesh Railway. This will also help the organization to improve their system by reducing waste.

1.3 Scope and Limitations of the study

This dissertation is mainly based on the study on a single project, 50 BG and 50MG Carriage rehabilitation project, executed by a unit of Bangladesh Railway. As, this is a random sample from a large number of procurements performed by different units in Bangladesh Railway, actual scenario may not be same for the other units of Bangladesh Railway.

The study is based on the data collected from the record files of the project. There may be some omission of information, human error, and intentional false record to keep the file clean to the audit team. Thus, there is a risk of wrong outcome from the dissertation. Due to time and resource constraint, it was difficult to analyze more procurement processes of different

units of this organization. Hence, results found from this study may deviate a little from the actual scenario of the efficiency of procurement process of Bangladesh Railway.

1.4 Organization of thesis

Chapter 1 is about the background, necessity, objectives and limitations of this study. It focuses on the central research question and degree of accuracy of outcome from this study.

Chapter 2 is about the literature review of the study, definition of procurement & public procurement and history of public procurement in Bangladesh.

Chapter 3 is about research methodology: data collection and analysis procedure, base and method of study.

Chapter 4 is about data analysis and discussion. This chapter is the heart of this study. Data is organized in different form and analyzed with different tools in this chapter.

Chapter 5 is about derivation of findings and decisions. This also includes the suggestion for the improvement of the system.

Chapter 2
Literature Review

2.1 Public Procurement Rules

2.1.1 Procurement

Procurement is a process of acquiring goods, works or services from an external source sometimes via competitive tendering. This process is used to ensure the best quality of product at the best price. There are different expressions about the term procurement.

According to Donald Dobler, “Procurement refers to the participation in the development of requirements and their specifications; managing value analysis activities; conducting supply market research; managing supplier negotiations; conducting traditional buying activities; administering purchase contracts; managing supplier quality; buying inbound transportation”.

From other point of view some scholar explains procurement as, “purchasing process that controls quantity, quality, sourcing and timing to ensure the best possible total cost of ownership”.

CIPSA members has defined Procurement as, “Procurement is the business management function that ensures identification, sourcing, access and management of the external resources that an organization needs or may need to fulfil its strategic objectives”.

2.1.2 Public Procurement

Public procurement is the process of acquiring goods, works or services by public body. It may be the government, semi-government, autonomous or semi-autonomous body. The main characteristics of public procurement is in all cases the procurement is performed expending public fund. As, tax payer’s money is involved here more transparency and responsibility is required here.

2.1.3 Public Procurement rules in Bangladesh

After the independence there were no separate legal instrument for public procurement process in Bangladesh. Different departments used to practice their procedures and practices in this regard. Bangladeshi government procurement process was basically operated by the compilation of General Financial rules (CGFR) which was influenced by British era. During 1996 Bangladesh Government undertook public procurement reform projects according to the

advice of World Bank. After few years the parliament of Bangladesh has passed a legal instrument named “Public Procurement Act-2006”. This is the base of public procurement in Bangladesh now. In 2008 Bangladesh government had formulated a guideline, captioned “Public Procurement Rules -2008”, explaining the “Public Procurement Act-2006”. Now, all government, semi-government, autonomous, semi-autonomous body follow these two instruments. In some cases, some private organization follow it as their procurement guideline to some extent.

2.2 Efficiency in Procurement

In general Efficiency is the ratio of output to input. But, in procurement it means something more. In procurement sometimes it is referred as to ensure Value For Money (VFM). This is basically a Japanese concept. Actually, this is to acquire the best possible product at a best possible price. In other words, it about eliminating waste from every step of procurement. This concept encourages to make the tendering process competitive where it is worth. Every activity of organization has a cost which can be translated into monetary value. Hence, making a procurement system effective is actually about making every activity worth more than the cost.

To evaluate the effectiveness, in this study some KPI is used as tools. Performance of the procurement process is compared to the established standards.

Chapter 3
Methodology

3.1 Introduction

This research is conducted to find out the efficiency of procurement process practiced in a project of Bangladesh Railway. This chapter is mainly about data collection and analysis procedure of this study. This chapter is also concerned about derivation of result from the analysis.

3.1 Sample procedure

Two types of data were collected for this study.

1. Primary data
2. Secondary Data

Primary data was collected using questionnaire survey from different contractor firms participated in this project. Questionnaire was sent to the respondents via mail. Secondary data was collected from the office record files of the project. These data were related to the compliance, performance and different value parameters of the project that will help to analyze the efficiency of the project.

3.1 Primary data collection

Primary data collection was conducted through a structured questionnaire (Appendix 1). It was qualitative data. The questionnaire was sent to 15 randomly selected firms that participated in the project. Among them 12 firms responded via mail. The firms are, M/S Shamsuddun Engineering, M/S Star technical, Prapti enterprise, M/S Islam traders, Bogra Traders, M/S Abdul Hakim, M/S Mirza Constructions, Authentic Power, M/S Malancha Builders, M/S Mirage International, M/S Rahman & co. and Faith and Fair Bangladesh. The questions were divided in

three category: Clearness of the requirement, friendliness of the system and transparency of the system.

3.4 Secondary data collection

Secondary data was collected from the record files of the project. There were 67 packages in this project. Among them data about 20 packages which were of higher value were collected for analysis due to time and resource constraints. Central Procurement Technical Unit (CPTU) has established 45 KPIs to measure the performance of a procurement. Among them 28 were relevant to this study. Those are segregated in four categories.

Efficiency

Total 7 KPIs are related to efficiency in procurement process.

KPI – 7: Percentage of tenders having sufficient tender submission time.

KPI – 15: Percentage of cases tender evaluation completed within timeline.

KPI – 17: Percentage of cases TEC recommended for Re-Tendering.

KPI – 18: Percentage of cases where tender process cancelled.

KPI – 22: Percentage of contract awards decisions made within timeline.

KPI – 29: Percentage of contracts awarded within initial tender validity Period.

KPI – 44: Percentage of procuring entity which has at least one trained /Certified procurement staff.

Transparency: Total 6 KPIs are related to Transparency of the procurement process.

KPI – 1: IFTs Publication in widely circulated national/ local newspapers. KPI – 2: Publication of IFTs each valued Tk. 10 million and above in Central Procurement Technical Unit (CPTU)'s website.

KPI – 13: Percentage of cases TEC included two external members outside the Ministry or Division.

KPI – 23: Percentage of cases TER reviewed by person/ committee other than the contract approving authority.

KPI – 24: Percentage of Tenders approved by higher tier than the contract approving authority.

KPI – 28: Publication of contract awards each valued Tk. 10 million and above in CPTU's website.

Competitiveness: Total 5 KPIs are related to Competitiveness in procurement process.

KPI – 5: Multiple locations submission of tenders.

KPI – 8: Average number of tenderers who purchased tender document.

KPI – 9: Average number of tenderers who submitted tender.

KPI – 10: Ratio of number of Tender submission and number of tender document sold.

KPI – 16: Average number of responsive tenders.

Compliance: Total 10 KPIs are related to the compliance in procurement process.

KPI – 3: Tenders following Government of Bangladesh Procurement Rules.

KPI – 6: Average number of days allowed preparing tender for submission.

KPI – 11: Percentage of cases TOC included at least ONE member from TEC.

KPI – 12: Percentage of cases TEC formed by contract approving authority.

KPI – 14: Average number of days between tender opening and completion of evaluation.

KPI – 20: Percentage of tenders approved by the proper financial delegated authority.

KPI – 21: Percentage of cases TEC submitted report directly to the contract approving authority where approving authority is HOPE or below.

KPI – 25: Average number of days between final approval and Notification of Award.

KPI – 26: Average number of days between tender opening and Notification of Award.

KPI – 27: Average number of days between Invitation for Tender (IFT) and Notification of Award.

Chapter 4
Data Analysis and Discussion

4.1 Introduction

This chapter is about analysis of the data collected and derivation of results. Primary and secondary data collected about "50 BG and 50MG Carriage rehabilitation project" is examined in this section from the perspective of efficiency using the KPIs set by CPTU as tools. CPTU has set these KPIs to investigate the compliance of PPR- 2008. Data was collected on random basis from tenderers participated in the project and office records.

4.2 Analysis of Primary Data

From the responses acquired from the tenderers data was converted from qualitative format to quantitative one. Questions of the questionnaire (Appendix 1) was divided in three categories. Question no.1 to question no. 3 represents the clearness of the requirements, no. 4 to no. 7 represents the friendliness of the system and no. 8 represents the transparency of the system. The response "very poor" is quantified as 1 and "Excellent" as 5 respectively. Then, average was determined for each category.

Graphs are plotted showing the serial number of respondents in "Appendix 2". The graphs are shown in figure no. 4.1, 4.2 and 4.3.

From the data collected we can see that among 12 respondents 5 of them thinks that the qualification of tenderers was expressed excellently in IFT, 2 of them thinks that specification and design was expressed excellently in tender document, 2 of them thinks that the volume and responsibility of works was described in the tender document excellently. Average point in the category clearness of requirement was 4.056 with a highest of 4.667. Hence, it is clear that though average responses about clearness was in the range of very good, there is deficiency in the clear expression of specification, design, volume and responsibility of works.

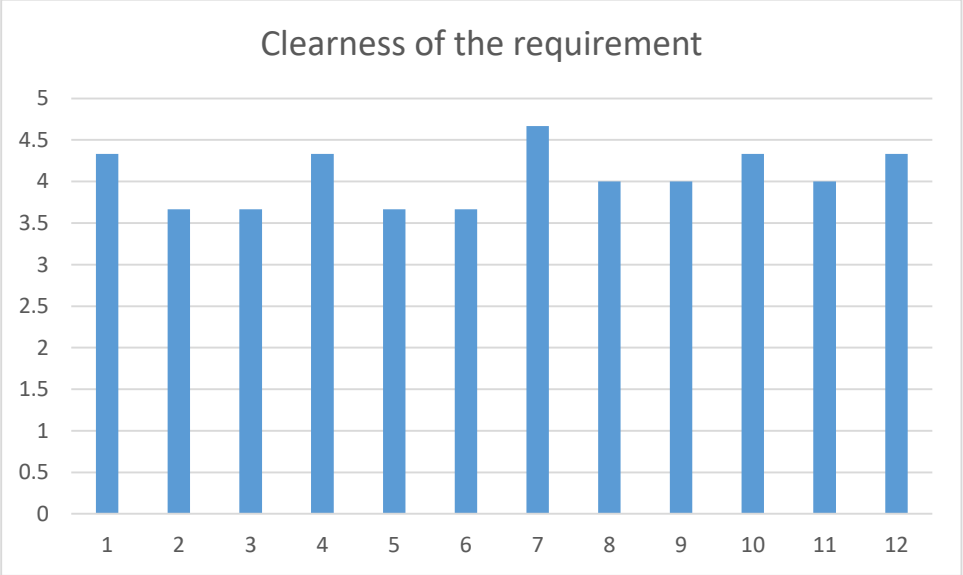

Fig 4.1: Clearness of requirements to the tenderers

The next four question of the questionnaire shows that, seven respondents thinks that easiness of getting the IFT was excellent, which indicates that the IFT was well circulated. Five respondents think that the easiness to get the tender document was excellent. The organization does not use online or electronic tendering, this is the reason for this lower rate. Only one respondent thinks that easiness of getting answer of queries is excellent. This indicates that, the organizations query response system is not up to the mark. Single respondent thinks that accessibility to the site was excellent. This also indicates that, the site

was not easily accessible to all prospective tenderers. The average point in this category is 4.083 with a highest of 4.5. This indicates that the system of the organization should be friendlier to the tenderers.

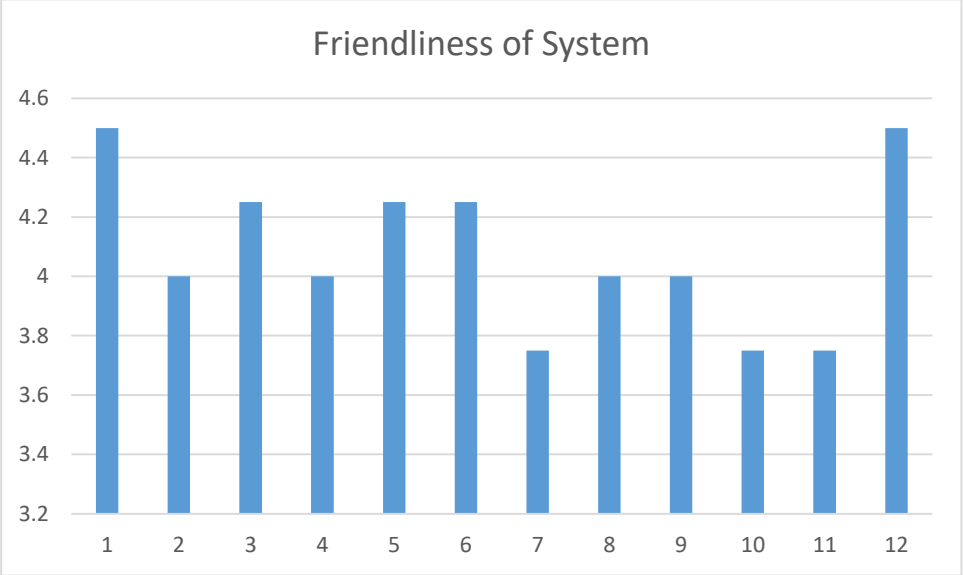

Fig 4.2: Friendliness of the system of procuring entity to tenderers

The last question of the questionnaire shows that three respondents think that the transparency of the procurement process is excellent. There is an average of 4 in this question, which indicates that transparency of the organization's procurement process is very good but there are some scopes of improvement in this side.

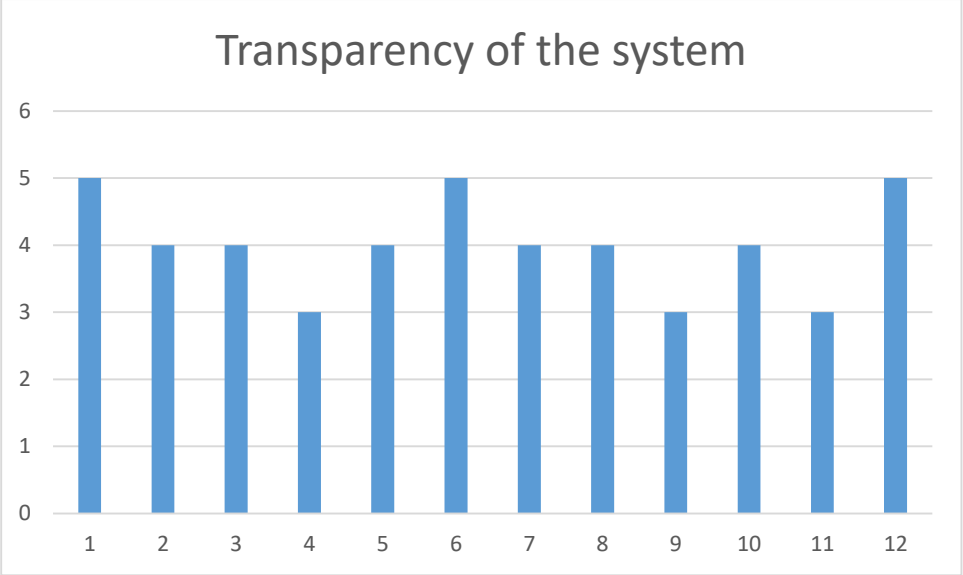

Fig 4.3: Transparency of the procurement system from the view of tenderer.

From this primary data analysis, we learn that the tenderers are more than average satisfied to the performance of the procurement process of "50 BG and 50 MG carriage rehabilitation project". But there is a lot of scope to improvise in the sector of specification, design, tender document, tenderer response system and transparency of the procurement process.

4.3 Analysis of Secondary Data

Secondary data was collected to determine the efficiency of the procurement process based on the KPIs established by CPTU. The data is analyzed here according to section 3.4 of this study.

4.3.1 Analysis of efficiency related KPIs

4.3.1.1 KPI-7 Percentage of tenderers having sufficient tender submission time.

This KPI is related to the justified opportunity of having time to get information about the tender. According to section 64(1) of PPR-2008 tenderer should have at least 14 days for tender preparation after the IFT is published for a tender valued up to 20 million. IFT publication date and Last date of tender submission is listed in Appendix 4.

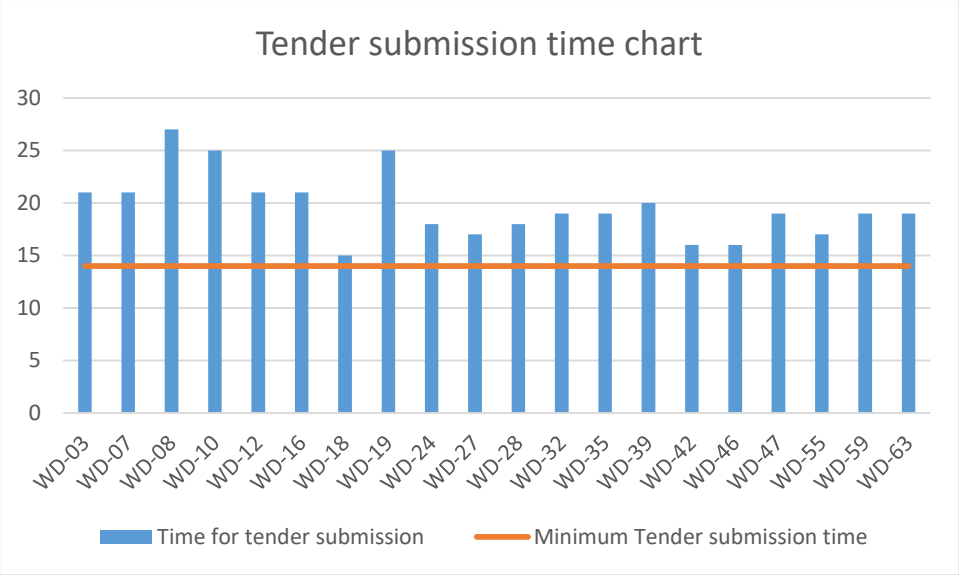

Fig: 4.4 Tender submission time chart

The data collected is plotted into a 2-D column graph. From the graph it is found that all the tenders have been provided with the minimum tender preparation time. Hence, achievement at the point of KPI-7 in this project is 100%.

4.3.1.2 KPI – 15: Percentage of cases tender evaluation completed within timeline.

This KPI is related to the performance of Tender Evaluation committee (TEC). According to PPR-2008 tender evaluation should be completed within two weeks from the opening for the tenders approved by the Project Director. Tender opening date and the date of evaluation completion is listed in Appendix 5.

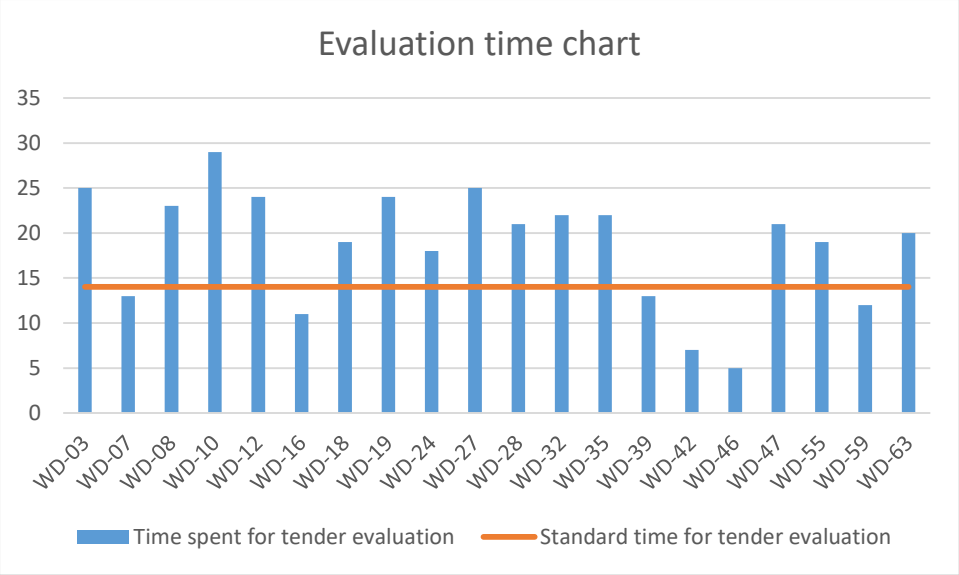

Fig 4.5: Evaluation time chart

From the chart it is found that, evaluation is completed within timeline only for 6 tenders out of 20 which is 30%. This indicates the inefficiency of evaluation process of the organization. Thus, it is identified that the achievement at the point of KPI-15 for the project is 30%.

4.3.1.3 KPI – 17: Percentage of cases TEC recommended for Re-Tendering.

This KPI is related to the successful participation of the tenderers. If the tenderers fail to meet the requirements of the procuring entity TEC recommends for re-tendering. Re-tendering may be caused by the deficiency of either from the tenderer or from the procuring entity end. From the data analysis it is found that the tenderers have participated successfully in the tendering process. TEC has found eligible tenderers for every tender. That is why, they did not recommend any tender for re-tendering. In this pint of KPI-17 the efficiency of the project is 100%.

4.3.1.4 KPI – 18: Percentage of cases where tender process cancelled.

This KPI is related to the successful completion of the tendering process. Procuring entity my cancel a tender on various ground like forced measure, insufficient fund, incapacity of contractor etc. Except for the forced measure all other indicates the lack of planning of the procuring entity. In this project, the procuring entity has never cancelled a tender. This indicates the higher level of performance of the project management. So, from the point of KPI-18 efficiency of the project is 100%.

4.3.1.5 KPI – 22: Percentage of contract awards decisions made within timeline.

This KPI is related to the performance of the system from tender opening to approval of the Tender Evaluation Report (TER). According to the PPR-2008, standard time duration from tender opening to evaluation for tenders approved by project director is 14 days and from evaluation to approval is 7 days. Hence, standard time from tender opening to contract award is total 21 days for the tenders those are being analyzed in this study. Actual times spent in this regard for the sample packages are listed in Appendix 6. The times are plotted in a graph to compare it with the

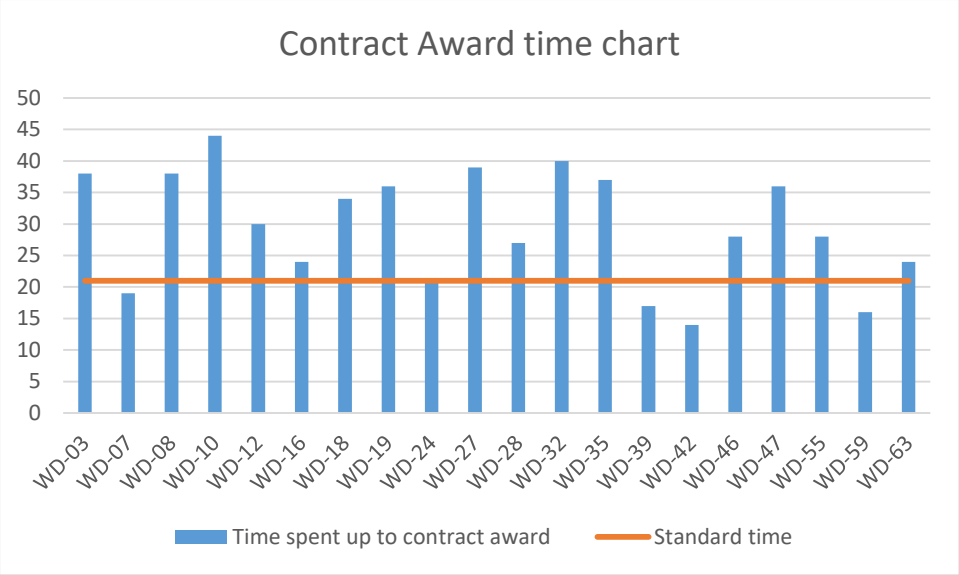

Fig 4.6: Contract Award time chart

standard time duration. From the graph it is found that contracts are awarded within timeline only in five of the packages among 20. Hence, efficiency of the project for this KPI is 25%.

4.3.1.6 KPI – 29: Percentage of contracts awarded within initial tender validity period.

This KPI is related to the performance of the system from tender opening to issuance of NOA. The time required to that is compared to the tender validity period defined in tender document. According to PPR-2008 standard time is within the range of 60 days to 120 days. Procuring entity takes the decision according to the complexity of the work and tendering process. The information is shown in Appendix 7.

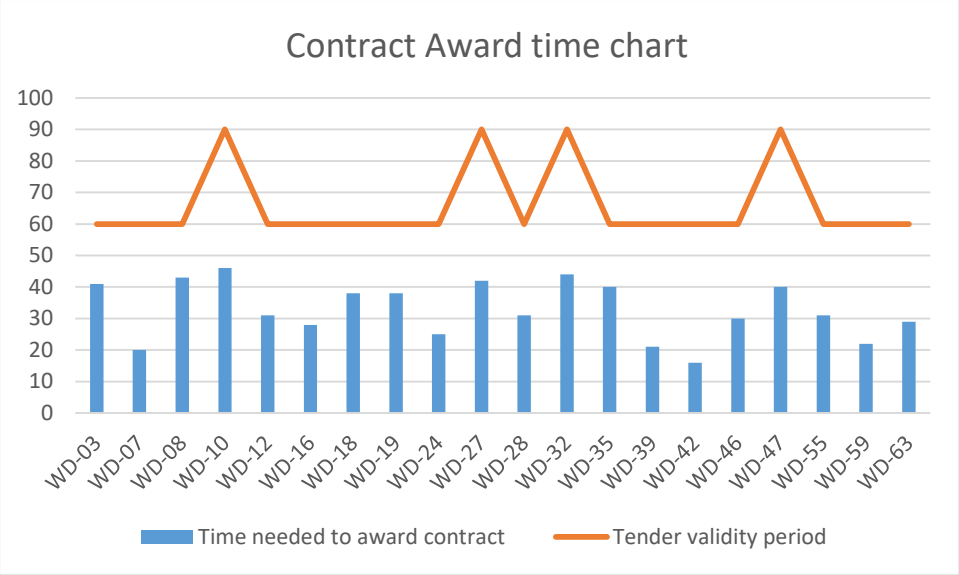

Fig 4.7: Contract award time chart

From the analysis it is found that, for all the tenders' contract was awarded within tender validity period. Thus, efficiency of the project for the KPI-29 is 100%.

4.3.1.7 KPI – 44: Percentage of procuring entity which has at least one trained /certified procurement staff.

This KPI is related to the quality of the personnel of the organization. It highlights the organization's capability of procurement. For the project being studied, there are procuring entities having total 32 staffs. But, none of them are trained/certified. Thus, we see that the efficiency of the project for KPI-44 is 0%.

4.3.2 Transparency related KPI analysis

4.3.2.1 KPI – 1: IFTs Publication in widely circulated national/ local newspapers.

According to the section 90(2)(a) of PPR-2008 "Invitation shall be advertised in, at least one Bangla language national newspaper and one English language national newspaper, both of which shall have a wide daily circulation within Bangladesh". For the "50 BG and 50 MG

carriage rehabilitation project" the project management has collected the list of top circulating newspapers from the Ministry of Information and published the IFT in the newspapers ranked within top 25. For all the tenders the have followed the procedure. Hence, at the point of KPI-1 the project was completely transparent and the efficiency is 100%.

4.3.2.2 KPI – 2: Publication of IFTs each valued Tk. 10 million and above in Central Procurement Technical Unit (CPTU)'s website.

This KPI is also related to the concept of equal opportunity for all prospective tenderer to get the information about the tender. According to section 90(2)(i) there is an obligation of publication of tender notice in CPTU website for the tender value more than 10 million. Among the 20 sample tenders only 3 of them were within that range. All of those tender notices were published in CPTU website according to the instruction. This implies that, performance of the project from the reference of KPI-2 was fully transparent and the efficiency can be expressed as 100%.

4.3.2.3 KPI – 13: Percentage of cases TEC included two external members outside the Ministry or Division.

This KPI is related to the transparency of evaluation process. There is a bindings to include 2 members in evaluation committee from other ministry or division to ensure that the evaluation is not biased by the procuring organization. According to section 8(1) of PPR-2008, there should be 2 members in evaluation committee from other ministry or division. According to section 8(2) & 8(8) for low value of contract, below 1.5 million for goods, 3 million for works and 0.5 million for service, external members of the evaluation committee may be reduced to one and it can be from other agency or procuring entity. For the sample 20 tenders all of them were works an 11 of them were more than 3 million. For this 11 tender the project management

formed evaluation committee with 2 external member from other ministry or division. At this point they complied the PPR-2008 completely. So, it is found that, transparency related efficiency for the KPI-13 was 100% for the project.

4.3.2.4 KPI – 23: Percentage of cases TER reviewed by person/ committee other than the contract approving authority.

This KPI is related to the secrecy of the evaluation process. According to the section 36(3) of PPR-2008 the evaluation committee shall submit the evaluation report in a sealed envelope directly to the approving authority. For the tenders being studied in all case evaluation committee was chaired by an officer immediate below the rank of approving authority according to section 10 of PPR-2008 and the TER was sent directly to the approving authority in a sealed envelope. So, it is found that the project management has followed the PPR-2008 and maintained the secrecy of the evaluation process. From the point of KPI-23 the project has maintained the transparence and obtained an efficiency of 100%.

4.3.2.5 KPI – 24: Percentage of Tenders approved by higher tier than the contract approving authority.

This KPI is related to the decentralization of authority. Centralized authority leads to misuse of it. As, for all the tenders being studied had been approved by the approving authority the project had maintained an efficiency of 100%.

4.3.2.6 KPI – 28: Publication of contract awards each valued Tk. 10 million and above in CPTU's website.

This KPI is related to the transparency of the evaluation and contract award process. Publication of contract award information ensure the tenderer's scope for lodgment of

complaint for any injustice. PPR-2008 has instructed an obligation of publication of contract award information in the CPTU website for the contract value over 10 million. Among the tenders being studied only three of them were of the value above 10 million and for all of them the contract award information was published in CPTU website. Thus, the efficiency compared to the KPI-28 was 100% for the project.

4.3.3 Competitiveness related KPI analysis:

4.3.3.1 KPI – 5: Multiple locations submission of tenders.

This KPI is related to the assurance of all prospective tenderers to participate in the tender. PPR-2008 has adopted an option for arrangement of tender submission in different places for the easier submission for the tenderers based in different geographical locations. As, the project management for this project did not use this option this KPI is not applicable here.

4.3.3.2 KPI – 8: Average number of tenderers who purchased tender document.

This KPI is related to the performance of procuring entity about inclusion of prospective tenderers in to the tendering process. Procuring entity inspires the prospective tenderers by a proper advertisement. Competitiveness increases with higher document sell. Number of documents sold per tender is listed in Appendix 8. The data collected is plotted in a graph for better understanding.

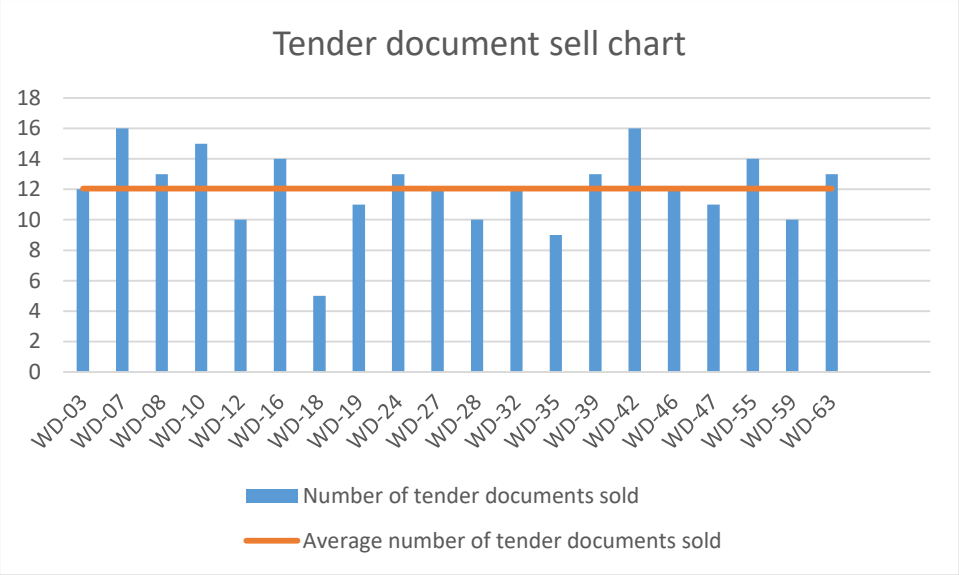

Fig 4.8: Tender documents sell chart

From the graph we see that highest 16 documents was sold with a lowest of 5 and average of 12.05. There is no minimum requirement or standard set by CPTU for this average. But we can say that 12.05 is a good average in this regard and effectiveness of the project for this KPI is high.

4.3.3.3 KPI – 9: Average number of tenderers who submitted tender.

This KPI is related to the competition among the tenderers. If the number of submissions becomes higher the competitiveness increases. The number of tender document submission is listed in Appendix 9. The data collected is plotted in a graph for better understanding.

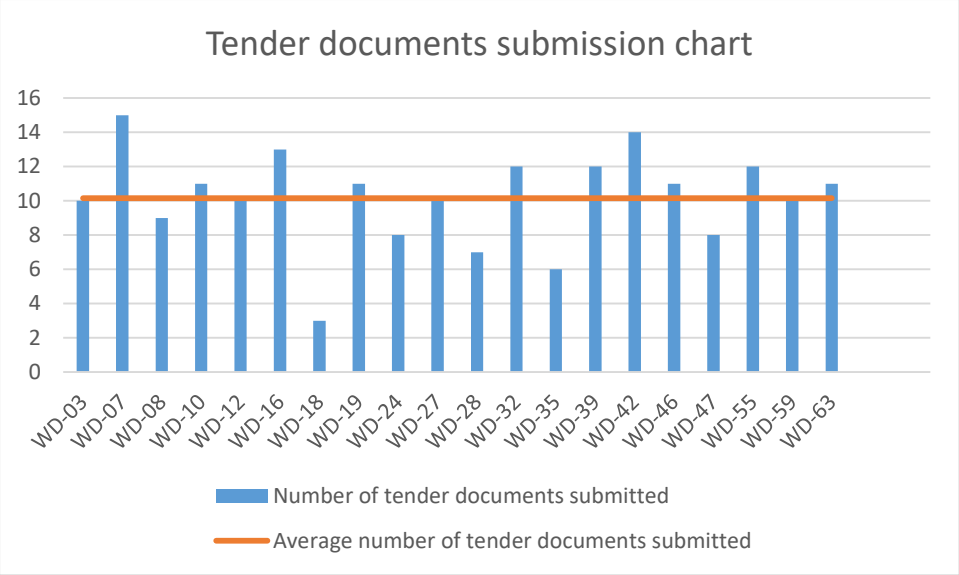

Fig 4.9: Tender document submission chart

From the graph it is found that average number of tender submissions is 10.15 with a highest of 15 and lowest of 3. There is no minimum requirement of standard set by PPR-2008 or CPTU. But, we can say that the average is good here because for every tender 10.15 tenderers were competing. Hence, effectiveness of project management is good for KPI-9.

4.3.3.4 KPI – 10: Ratio of number of Tender submission and number of tender documents sold.

This KPI is related to the proper expression of requirement in the advertisement. If the requirements are expressed properly the ratio of submission of tender document to documents sold will be higher. Ratio of number of tender submissions to documents sold is listed in Appendix 10. The data collected is plotted into a graph for better understanding.

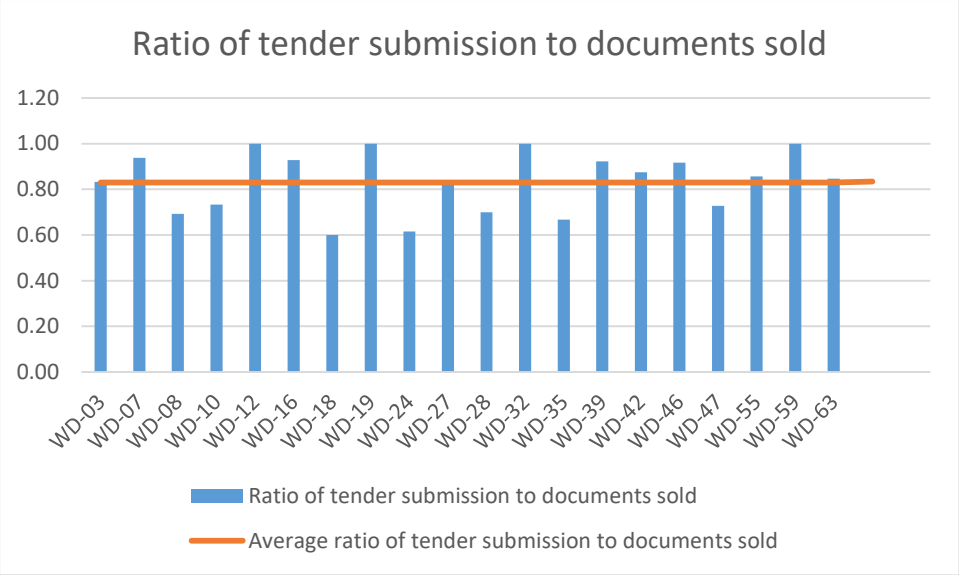

Fig 4.10: Ratio of tender submission to documents sold

From the chart it is found that the average ratio is 0.83 which can be expressed as 83%. Hence, the effectiveness of the project management for the KPI-10 is 83%.

4.3.3.5 KPI – 16: Average number of responsive tenders.

This KPI indicates the actual competition among the tenderers. Number of tender submissions is the participation of tenderers. But the actual competition is among the responsive tenderers. The number of responsive tenderers is listed in Appendix 11. The list is plotted into a column graph for understanding.

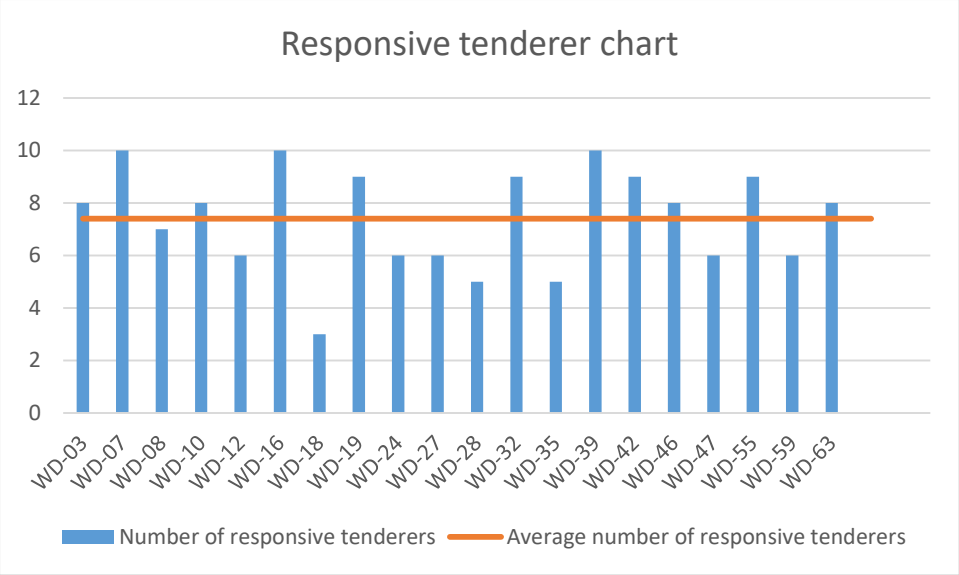

Fig 4.11: Responsive tenderer chart

From the graph it is shown that the average number of responsive tenderers is 7.4 which indicates that the actual completion was among 7.4 tenderers on an average for each tender. This indicates a high level of competition among the tenderers. In this regard we can see the achievement of the project management is satisfactory.

4.3.4 Compliance Related KPI analysis:

4.3.4.1 KPI – 3: Tenders following Government of Bangladesh Procurement Rules.

Procurement in Bangladesh is governed by Public Procurement Act (PPA)-2006 and Public Procurement Rules (PPR)-2008. For the project being studied the project management has complied all the rules during tendering process. Thus, compliance related efficiency of the project management for KPI-3 is 100%.

4.3.4.2 KPI – 6: Average number of days allowed preparing tender for submission.

This KPI is related to the compliance of providing sufficient time to tenderers for tender preparation. Standard time defined by PPR-2008 is 14 days for value of tender up to 20 million.

The time allowed for this purpose is discussed in section 4.3.1. From the discussion we see that the average time provided is 19.65. Thus, it can be said that the compliance of the project from the view of KPI-6 is 100%.

4.3.4.3 KPI – 11: Percentage of cases TOC included at least ONE member from TEC.

This KPI is about inclusion of member in TEC from TOC to ensure transparency. According to section 8 of PPR-2008 TEC must be formed with at least one member from TOC. For the tenders being studied the project management has complied this rule. Hence, the compliance is 100% here.

4.3.4.4 KPI – 12: Percentage of cases TEC formed by contract approving authority.

According to section 8(3) of PPR-2008 “the approving authority shall form the evaluation committee”. For all the tenders being studied TEC was formed by approving authority. This ensures the compliance of PPR-2008. Thus, efficiency of this project for KPI-12 was 100%.

4.3.4.5 KPI – 14: Average number of days between tender opening and completion of evaluation.

According to the schedule-III of PPR-2008 standard time between tender opening and completion of evaluation for the tenders being approved by Project Director is 14 days. List of time spent between tender opening and evaluation is listed in Appendix 5. From the list a graph is plotted in fig 4.5. From the list the average can be derived as 18.65 which is more than the standard value. Hence the project has complied the PPR-2008 100%.

4.3.4.6 KPI – 20: Percentage of tenders approved by the proper financial delegated authority. Approving authority for a tender is selected according to the delegation of financial power circulated by Ministry of Finance, Government of Bangladesh. The project management has

used the Delegation of Financial power for this purpose. For all the tenders of the project being studied the tender was approved by the authority complied with Delegation of Financial power. So, it can be said that the project has complied the terms of KPI-20 by 100%.

4.3.4.7 KPI – 21: Percentage of cases TEC submitted report directly to the contract approving authority where approving authority is HOPE or below.

According to the section 36(3) of PPR-2008 the evaluation committee shall submit the evaluation report in a sealed envelope directly to the approving authority. For the tenders being studied in all cases the TER was submitted according to section 36(3) of PPR-2008. Hence, the compliance in this regard is 100%.

4.3.4.8 KPI – 25: Average number of days between final approval and Notification of Award.

According to PPR-2008 the standard number of days between final approval and Notification of Award should be one week in all cases. For the tenders being studied actual number of days between final approval and Notification of award is listed in Appendix 12. From the list we get an average of 3.3 days which is below one week. Thus, the tenders comply this point by 100%.

4.3.4.9 KPI – 26: Average number of days between tender opening and Notification of Award.

According to PPR-2008 standard number of days between tender opening and Notification of Award is four weeks for the tenders approved by Project Director. For the tenders being studied the data related to this is listed in Appendix 13. Analyzing the data of Appendix 13 it is obtained that the average number of days between tender opening and notification of award is 32.8 which is slightly above the standard time. So, from the point of KPI-26 tenders of the project did not comply the standard on an average.

4.3.4.10 KPI – 27: Average number of days between Invitation for Tender (IFT) and Notification of Award.

This KPI is related to the time usage related compliance of the procurement process. According to the PPR-2008 standard time for IFT to NOA should be 6 weeks for the tender valued below 20 million and approved by the Project Director. Actual time required for the tenders of the project being studied is listed in Appendix 14. From the list it is learned that Average time spent for the tenders between IFT to NOA is 52.45 days which is slightly above the standard time. Hence, the tenders did not comply the standard on an average

4.4 Summary of KPI analysis:

Table 4.4 Summary of KPI analysis

Area	KPI no.	KPI	Performance of tenders	PPR Standard	Remarks
IFT	KPI–1	IFTs Publication in widely circulated national/ local newspapers.	100%	100%	
	KPI-2	Publication of IFTs each valued Tk. 10 million and above in Central Procurement Technical Unit (CPTU)'s website.	100%	100%	
Tender Submission	KPI-6	Average number of days allowed preparing tender for submission.	19.65	14 days (for values up to 20 mil)	
	KPI-7	Percentage of tenders having sufficient tender submission time	100%	100%	
	KPI-8	Average number of tenderers who purchased tender document.	12.5		
	KPI-9	Average number of tenderers who submitted tender	10.15		
	KPI-10	Ratio of number of Tender	0.83	1	Requires

		submission and number of tender documents sold.			improve ment
TOC & TEC formation	KPI-11	Percentage of cases TOC included at least ONE member from TEC.	100%	100%	
	KPI-12	Percentage of cases TEC formed by contract approving authority.	100%	100%	
	KPI-13	Percentage of cases TEC included two external members outside the Ministry or Division	100%	100%	
Evaluation	KPI-14	Average number of days between tender opening and completion of evaluation	18.65	14	Requires improve ment
	KPI-15	Percentage of cases tender evaluation completed within timeline. Percentage of cases where tender process cancelled	30%	100%	Requires improve ment
	KPI-16	Average number of responsive tenders	7.4		
	KPI-17	Percentage of cases TEC recommended for Re-Tendering.	0%	0%	
	KPI-18	Percentage of cases where tender process cancelled	0%	0%	
Approval	KPI-20	Percentage of tenders approved by the proper financial delegated authority.	100%	100%	
	KPI-21	Percentage of cases TEC submitted report directly to the contract approving authority where approving authority is HOPE or below.	100%	100%	
NOA	KPI-25	Average number of days between final approval and Notification of Award.	3.3	7	
	KPI-26	Average number of days between tender opening and Notification of Award.	32.8	28	Requires improve ment
	KPI-27	Average number of days between Invitation for Tender (IFT) and Notification	52.45	42	Requires improve ment

		of Award.			
Contract Award	KPI-28	Publication of contract awards each valued Tk. 10 million and above in CPTU's website	100%	100%	

Chapter 5
Conclusion

5.1 Conclusion

From the study it is obtained that efficiency in procurement of Bangladesh Railway is at a moderate level. It is practicing procurement in some points excellently; in some cases, it requires improvement. Findings from this study is summarized below.

1. In the eye of tenderers clearness of requirements, friendliness of system and transparency of system is very good, not excellent.
2. The system has 100% compliance and efficiency up to tender opening.
3. Form evaluation the performance of the system is not up to the standard.
4. The Procurement process of Bangladesh Railway has 100% compliance on financial rules and obligation.
5. The Procurement process of Bangladesh Railway has waste of time in the process.
6. Procurement personnel are not trained at all.

5.2 Recommendation

From the findings above following recommendations are derived for the improvement of the procurement process of Bangladesh Railway.

1. Training should be conducted for the procurement personnel.

2. Seminar and motivation sessions for procurement personnel should be conducted for better understanding of the implication of waste on the system.
3. Procurement should be performed in electronic process.
4. Responsibility of each person should be made clear and accountability should be ensured.

References

1. Public Procurement Act-2006, Published by Ministry of Law, Justice and Parliamentary affairs, Government of Peoples Republic of Bangladesh.
2. Public Procurement Rules-2008, Published by Ministry of Planning, Government of Peoples Republic of Bangladesh.
3. Purchasing and Supply Management by Donald Dobler.
4. Statement form CIPSA members, https://www.cips.org/Documents/CIPSAWhitePapers/2006/Definition_of_Procurement.pdf
5. General Financial Rules (GFR), Circulated by Ministry of Finance, Government of Peoples Republic of Bangladesh.
6. Delegation of Financial Power, Circulated by Ministry of Finance, Government of Peoples Republic of Bangladesh.

Appendix 1

Evaluation of tendering process in 50 BG and 50MG Carriage rehabilitation project of Bangladesh Railway

1. How clearly the qualification of tenderers were expressed in IFT?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

2. How clearly the specification and design of was expressed in tender document?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

3. How clearly the volume and responsibility of works/was described in the tender document.

   □ Very poor □ Not good □ Good □ Very good □ Excellent

4. How easy it was to get the IFTs?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

5. How easy it was to get the tender documents?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

6. How easy it was to get the answer of the queries?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

7. How accessible the site was to the prospective tenderers?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

8. How transparent was the tendering process?

   □ Very poor □ Not good □ Good □ Very good □ Excellent

Appendix 2

List of Respondents

1. M/S Shamsuddun Engineering.
2. M/S Star technical.
3. Prapti enterprise.
4. M/S Islam traders.
5. Bogra Traders.
6. M/S Abdul Hakim.
7. M/S Mirza Constructions.
8. Authentic Power.
9. M/S Malancha Builders.
10. M/S Mirage International.
11. M/S Rahman & co.
12. Faith and Fair Bangladesh

Appendix 3

Responses of the tenderers

Tenderer no (of Appendix 2).	**Response to question no (of Appendix 1).**							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1	5	4	4	5	4	4	5	5
2	4	4	3	4	5	3	4	4
3	4	3	4	5	5	4	3	4
4	5	4	4	5	4	3	4	3
5	5	3	3	5	5	4	3	4
6	4	3	4	4	4	5	4	5
7	4	5	5	5	4	3	3	4
8	4	4	4	4	5	3	4	4
9	5	4	3	5	4	4	3	3
10	4	5	4	4	4	4	3	4
11	4	3	5	4	4	3	4	3
12	5	4	4	5	5	4	4	5

Appendix 4

List of time allocation for tender submission

Package no.	Date of publication of IFT	Last date of tender submission
WD-03	12-02-2015	05-03-2015
WD-07	12-02-2015	05-03-2015
WD-08	24-02-2015	23-03-2015
WD-10	04-03-2015	29-03-2015
WD-12	15-03-2015	05-04-2015
WD-16	07-06-2015	28-06-2015
WD-18	08-04-2015	23-04-2015
WD-19	04-03-2015	29-03-2015
WD-24	19-04-2015	07-05-2015
WD-27	04-05-2015	21-05-2015
WD-28	12-07-2015	30-07-2015
WD-32	16-07-2015	04-08-2015
WD-35	23-07-2015	11-08-2015
WD-39	05-05-2015	25-05-2015
WD-42	02-08-2015	18-08-2015
WD-46	02-08-2015	18-08-2015
WD-47	06-08-2015	25-08-2015
WD-55	17-08-2015	03-09-2015
WD-59	23-07-2015	11-08-2015
WD-63	19-08-2015	07-09-2015

Appendix 5

List of time spent for tender evaluation

Package no.	Date of tender opening	Date of evaluation completion
WD-03	05-03-2015	30-03-2015
WD-07	05-03-2015	18-03-2015
WD-08	23-03-2015	15-04-2015
WD-10	29-03-2015	27-04-2015
WD-12	05-04-2015	29-04-2015
WD-16	28-06-2015	09-07-2015
WD-18	23-04-2015	12-05-2015
WD-19	29-03-2015	22-04-2015
WD-24	07-05-2015	25-05-2015
WD-27	21-05-2015	15-06-2015
WD-28	30-07-2015	20-08-2015
WD-32	04-08-2015	26-08-2015
WD-35	11-08-2015	02-09-2015
WD-39	25-05-2015	07-06-2015
WD-42	18-08-2015	25-08-2015
WD-46	18-08-2015	23-08-2015
WD-47	25-08-2015	15-09-2015
WD-55	03-09-2015	22-09-2015
WD-59	11-08-2015	23-08-2015
WD-63	07-09-2015	27-09-2015

Appendix 6

List of time required from tender opening to Contract Award decision

Package no.	Date of tender opening	Date of Contract Award decision made
WD-03	05-03-2015	12-04-2015
WD-07	05-03-2015	24-03-2015
WD-08	23-03-2015	30-04-2015
WD-10	29-03-2015	12-05-2015
WD-12	05-04-2015	05-05-2015
WD-16	28-06-2015	22-07-2015
WD-18	23-04-2015	27-05-2015
WD-19	29-03-2015	04-05-2015
WD-24	07-05-2015	28-05-2015
WD-27	21-05-2015	29-06-2015
WD-28	30-07-2015	26-08-2015
WD-32	04-08-2015	13-09-2015
WD-35	11-08-2015	17-09-2015
WD-39	25-05-2015	11-06-2015
WD-42	18-08-2015	01-09-2015
WD-46	18-08-2015	15-09-2015
WD-47	25-08-2015	30-09-2015
WD-55	03-09-2015	01-10-2015
WD-59	11-08-2015	27-08-2015
WD-63	07-09-2015	01-10-2015

Appendix 7

List of time required from tender opening to Contract Awarded and tender validity period

Package no.	Date of tender opening	Date of Contract Award decision made	Tender validity period
WD-03	05-03-2015	15-04-2015	60
WD-07	05-03-2015	25-03-2015	60
WD-08	23-03-2015	05-05-2015	60
WD-10	29-03-2015	14-05-2015	90
WD-12	05-04-2015	06-05-2015	60
WD-16	28-06-2015	26-07-2015	60
WD-18	23-04-2015	31-05-2015	60
WD-19	29-03-2015	06-05-2015	60
WD-24	07-05-2015	01-06-2015	60
WD-27	21-05-2015	02-07-2015	90
WD-28	30-07-2015	30-08-2015	60
WD-32	04-08-2015	17-09-2015	90
WD-35	11-08-2015	20-09-2015	60
WD-39	25-05-2015	15-06-2015	60
WD-42	18-08-2015	03-09-2015	60
WD-46	18-08-2015	17-09-2015	60
WD-47	25-08-2015	04-10-2015	90
WD-55	03-09-2015	04-10-2015	60
WD-59	11-08-2015	02-09-2015	60
WD-63	07-09-2015	06-10-2015	60

Appendix 8

List of tender documents sold

Package no.	Number of tender documents sold
WD-03	12
WD-07	16
WD-08	13
WD-10	15
WD-12	10
WD-16	14
WD-18	5
WD-19	11
WD-24	13
WD-27	12
WD-28	10
WD-32	12
WD-35	9
WD-39	13
WD-42	16
WD-46	12
WD-47	11
WD-55	14
WD-59	10
WD-63	13

Appendix 9

List of tender documents submitted

Package no.	Number of tender documents submitted
WD-03	10
WD-07	15
WD-08	9
WD-10	11
WD-12	10
WD-16	13
WD-18	3
WD-19	11
WD-24	8
WD-27	10
WD-28	7
WD-32	12
WD-35	6
WD-39	12
WD-42	14
WD-46	11
WD-47	8
WD-55	12
WD-59	10
WD-63	11

Appendix 10

List of ratio of tender document submitted to tender documents sold

Package no.	Ratio of tender documents submitted to documents sold
WD-03	0.83
WD-07	0.94
WD-08	0.69
WD-10	0.73
WD-12	1.00
WD-16	0.93
WD-18	0.60
WD-19	1.00
WD-24	0.62
WD-27	0.83
WD-28	0.70
WD-32	1.00
WD-35	0.67
WD-39	0.92
WD-42	0.88
WD-46	0.92
WD-47	0.73
WD-55	0.86
WD-59	1.00
WD-63	0.85

Appendix 11

List of numbers of responsive tenderers

Package no.	Number of responsive tenderers
WD-03	8
WD-07	10
WD-08	7
WD-10	8
WD-12	6
WD-16	10
WD-18	3
WD-19	9
WD-24	6
WD-27	6
WD-28	5
WD-32	9
WD-35	5
WD-39	10
WD-42	9
WD-46	8
WD-47	6
WD-55	9
WD-59	6
WD-63	8

Appendix 12

List of time between Final Approval and Notification of Award

Package no.	Date of Final approval	Date of issuing Notification of Award	Days between Final approval and Notification of Award
WD-03	12-04-2015	15-04-2015	3
WD-07	24-03-2015	25-03-2015	1
WD-08	30-04-2015	05-05-2015	5
WD-10	12-05-2015	14-05-2015	2
WD-12	05-05-2015	06-05-2015	1
WD-16	22-07-2015	26-07-2015	4
WD-18	27-05-2015	31-05-2015	4
WD-19	04-05-2015	06-05-2015	2
WD-24	28-05-2015	01-06-2015	4
WD-27	29-06-2015	02-07-2015	3
WD-28	26-08-2015	30-08-2015	4
WD-32	13-09-2015	17-09-2015	4
WD-35	17-09-2015	20-09-2015	3
WD-39	11-06-2015	15-06-2015	4
WD-42	01-09-2015	03-09-2015	2
WD-46	15-09-2015	17-09-2015	2
WD-47	30-09-2015	04-10-2015	4
WD-55	01-10-2015	04-10-2015	3
WD-59	27-08-2015	02-09-2015	6
WD-63	01-10-2015	06-10-2015	5

Appendix 13

List of time between Tender Opening and Notification of Award

Package no.	Date of tender opening	Date of issuing Notification of Award	Days between Tender opening and Notification of Award
WD-03	05-03-2015	15-04-2015	41
WD-07	05-03-2015	25-03-2015	20
WD-08	23-03-2015	05-05-2015	43
WD-10	29-03-2015	14-05-2015	46
WD-12	05-04-2015	06-05-2015	31
WD-16	28-06-2015	26-07-2015	28
WD-18	23-04-2015	31-05-2015	38
WD-19	29-03-2015	06-05-2015	38
WD-24	07-05-2015	01-06-2015	25
WD-27	21-05-2015	02-07-2015	42
WD-28	30-07-2015	30-08-2015	31
WD-32	04-08-2015	17-09-2015	44
WD-35	11-08-2015	20-09-2015	40
WD-39	25-05-2015	15-06-2015	21
WD-42	18-08-2015	03-09-2015	16
WD-46	18-08-2015	17-09-2015	30
WD-47	25-08-2015	04-10-2015	40
WD-55	03-09-2015	04-10-2015	31
WD-59	11-08-2015	02-09-2015	22
WD-63	07-09-2015	06-10-2015	29

Appendix 14

List of time between Invitation for Tender (IFT) and Notification of Award (NOA)

Package no.	Date of IFT	Date of issuing Notification of Award	Days between IFT and Notification of Award
WD-03	12-02-2015	15-04-2015	41
WD-07	12-02-2015	25-03-2015	20
WD-08	24-02-2015	05-05-2015	43
WD-10	04-03-2015	14-05-2015	46
WD-12	15-03-2015	06-05-2015	31
WD-16	07-06-2015	26-07-2015	28
WD-18	08-04-2015	31-05-2015	38
WD-19	04-03-2015	06-05-2015	38
WD-24	19-04-2015	01-06-2015	25
WD-27	04-05-2015	02-07-2015	42
WD-28	12-07-2015	30-08-2015	31
WD-32	16-07-2015	17-09-2015	44
WD-35	23-07-2015	20-09-2015	40
WD-39	05-05-2015	15-06-2015	21
WD-42	02-08-2015	03-09-2015	16
WD-46	02-08-2015	17-09-2015	30
WD-47	06-08-2015	04-10-2015	40
WD-55	17-08-2015	04-10-2015	31
WD-59	23-07-2015	02-09-2015	22
WD-63	19-08-2015	06-10-2015	29