



GLOBAL JOURNAL OF RESEARCHES IN ENGINEERING: F  
ELECTRICAL AND ELECTRONICS EN  
Volume 16 Issue 7 Version 1.0 Year 2016  
Type: Double Blind Peer Reviewed International Research Journal  
Publisher: Global Journals Inc. (USA)  
Online ISSN: 2249-4596 & Print ISSN: 0975-5861

# A Critical Analysis on Electro-Mechanical Works of Public Works Department Based on Key Performance Indicators to Comply PPA 2006 & PPR 2008

By Kanij Fatema, Avizit Basak, Sobuj Kumar Ray  
& M. M. Israfil Shahin Seddiqe

*DESCO*

**Abstract-** Using Public funds for Public Works is of great responsibility and accountability for the procurement officials of the government. Transparency, efficiency, accountability, competitiveness, equitable treatment and free & fair competition are essential to be ensured in the procurement using public funds. In Bangladesh, these could not be ensured earlier due to a lack of proper rules and regulation. To streamline the public procurement activities, the Government of the People's Republic of Bangladesh has enacted Public Procurement Act (PPA) 2006 and thereafter issued Public Procurement Rules (PPR) 2008. Since then government agencies are bound to abide by the Act and Rules very strictly in their procurement activities.

**Keywords:** PPA, PPR, KPI and PWD.

**GJRE-F Classification:** FOR Code: 290901p



*Strictly as per the compliance and regulations of :*



© 2016. Kanij Fatema, Avizit Basak, Sobuj Kumar Ray & M. M. Israfil Shahin Seddiqe. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License <http://creativecommons.org/licenses/by-nc/3.0/>), permitting all non commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

# A Critical Analysis on Electro-Mechanical Works of Public Works Department Based on Key Performance Indicators to Comply PPA 2006 & PPR 2008

Kanij Fatema <sup>α</sup>, Avizit Basak <sup>σ</sup>, Sobuj Kumar Ray <sup>ρ</sup> & M. M. Israfil Shahin Seddique <sup>ω</sup>

**Abstract-** Using Public funds for Public Works is of great responsibility and accountability for the procurement officials of the government. Transparency, efficiency, accountability, competitiveness, equitable treatment and free & fair competition are essential to be ensured in the procurement using public funds. In Bangladesh, these could not be ensured earlier due to a lack of proper rules and regulation. To streamline the public procurement activities, the Government of the People's Republic of Bangladesh has enacted Public Procurement Act (PPA) 2006 and thereafter issued Public Procurement Rules (PPR) 2008. Since then government agencies are bound to abide by the Act and Rules very strictly in their procurement activities. The Central Procurement Technical Unit (CPTU) of the Implementation Monitoring and Evaluation Division (IMED) is continually monitoring the compliance of PPA 2006 and PPR 2008 by the target agencies in the light of 45 predetermined Key Performance Indicators (KPI).

The research has been designed under the questions if PWD's electro-mechanical works are following PPR 2008 completely or not; and if not, then the causes behind that. The main objectives of the present study are to find out the extent of compliance of PPR 2008 by PWD and to find out the gap of compliance and scope of improvement for implementation. The related literatures and reports, particularly from PWD and SRGB, have been thoroughly reviewed before conducting the main research work. The key findings of these reports have been compared and analyzed which helped to draw important conclusion of the study.

**Keywords:** PPA, PPR, KPI and PWD.

## I. INTRODUCTION

### a) Background and Context

"Procurement" means the purchasing or hiring of Goods, or acquisition of Goods through purchasing and hiring, and the execution of Works and performance of Services by any contractual

means. When procurement is done with public money, then it is called public procurement.

Until 2003, there was no standard and legal framework for public procurement in Bangladesh and General Financial Rules (GFR) had regulated public procurement procedures and practices in Bangladesh. These rules were originally issued during the British period and slightly revised in 1951 under the Pakistani rule. After Bangladesh's independence, few changes were made to these rules in 1994 and 1999 respectively (Islam, 2011).

To ensure transparency and accountability in the procurement of goods, works or services using public funds, and ensuring equitable treatment and free and fair competition among all persons wishing to participate in such procurement, the Government of the People's Republic of Bangladesh has enacted Public Procurement Act 2006 (hereinafter called PPA 2006) on 06 July 2006. Under the framework of PPA 2006, the government issued Public Procurement Rules 2008 (hereinafter called PPR 2008) which has come into effective on January 31, 2008. All these were the outcomes of the reform process taken by the government to streamline the public procurement. Earlier in 2003, Public procurement Regulations 2003 which was effective till the PPR 2008 was issued (Hoque, 2010).

Upon issuance of the PPA 2006 and PPR 2008, the government agencies are bound to follow the Act and Rules in the day to day procurement activities of their own. The Central Procurement Technical Unit (CPTU) of the Implementation Monitoring and Evaluation Division (IMED) of the Ministry of Planning have been established for carrying out the purposes of Section 67 of PPA 2006 which states as follows:

*Section 67: For carrying out the purposes of the Act, the Government shall, through a Central Procurement Technical Unit or any other unit established by it relating to procurement monitoring, coordination and management, perform the following responsibilities, namely –*

a. Providing for monitoring compliance with and implementation of this Act through the authority as

**Author α:** B.Sc In EEE (RUET), Masters in Procurement and Supply Management, BRAC Institute of Governance and Development, BRAC University, Member of the Chartered Institute of Procurement & Supply (UK). e-mail: kanijbithy@gmail.com

**Author σ ω:** B.Sc in Electrical & Electronics Engineering from Rajshahi University of Engineering & Technology (RUET), Rajshahi, Bangladesh. e-mails: dhrubo\_eee88@yahoo.com, mmisrafil@gmail.com.

**About ρ:** Assistant Engineer, DESCO, B.Sc. in EEE from RUET, Rajshahi, M. Engineering and MBA Student DUET and Uttara University, Respectively. e-mail: sobuj\_kumar\_ray@yahoo.com

- designated by the Government;
- b. Arranging for performance of the necessary functions and responsibilities incidental thereto, through the authority as designated by the government and
- c. Performing any other responsibilities as prescribed.

b) *Statement of the Problem*

Procurement of Goods, Works, and Services are also covered by the IMED's existing way of undertaking implementation monitoring and evaluation tasks but not monitored and evaluated on the basis of any key performance monitoring indicators. That's why CPTU of IMED is monitoring procurement performance through the PPRP-II project. CPTU has appointed a Project Implementation Support Consultant for each of the four target agencies. These consultants are submitting the procurement performance report of each agency on quarterly basis. Also, a consultancy firm, Survey Research Group (SRG) Bangladesh, appointed by CPTU, is submitting quarterly the reports to CPTU based on KPIs. Though it is reported that procurement performance of the target agencies are improving day by day, it would be wise enough to have an independent study to ascertain the procurement performance of the target agencies.

c) *Significance of the proposed research*

The procurement performance of the target agencies have been described and classified in terms of transparency, efficiency, competitiveness and compliance of government procurement rules and procedures. Among the four different categories, compliance of PPR 2008 is considered as the vital one. It is generally considered that if compliance is ensured, then the government purpose for ensuring value for money in the public procurement will be possible.

Among the four target agencies, PWD has a significant quantity of budget allocation against the projects in the Annual Development Programme (ADP).

d) *Research Questions*

This study aims to know the extent of compliance of PPR 2008 by PWD procurement activities. Also it is intended to know the hindrances which have been faced by PWD while complying with the rules of PPR 2008. Thus, the research questions for the present study are:

- i. Is PWD following PPR 2008 completely?
- ii. If NO, then what are the causes behind this?

e) *Objectives of the Study*

The objectives of the present study are as follows:

- i. To find out the extent of compliance of PPR 2008 by PWD.
- ii. To find out the gap of compliance and scope of improvement for implementation of PPR 2008 in PWD.

- iii. How to streamline the electro-mechanical works of PWD on the basis of KPIs set by PPA 2006 & PPR 2008.

f) *Scope of the Study*

Under the supervision of the Project Implementation Support Consultant appointed to PWD on behalf of CPTU, the procuring entity (PWD) is carrying out the monitoring and evaluation of their procurement performance in accordance with the set KPIs. But an independent study is intended from the concerned authorities to find out the gap of compliance of PPR 2008 in PWD. This study is such an approach for ascertaining the facts in PWD.

g) *Limitations of the study*

The limitations of this study have come from both its scope and its methodology. Survey was confined to electro-mechanical works of PWD Head Quarter and Dhaka. The respondents were selected mainly from the organization's head office and Sher-e-Bangla Nagar office of Dhaka city. On the other hand, officers were selected on the basis of researcher's convenience. Key informant interview was conducted on few senior officers and with the consultant engaged in PWD from CPTU. Time constraint was also one of the major limitations of the study. Most of the respondents had gathered different types of experiences in different projects; sometimes experiences were not generalized rather project-specific. This issue had come across during the interviews. Also the officers were requested to give answers based on their own perception. As the perceptions on situation varied from person to person, this may have been a major limitation of the study.

## II. METHODOLOGY

a) *Methods of collecting data/Sampling method*

A questionnaire survey was adopted for this study. Survey method was used as this is considered as the best method available to the social scientists interested in collecting original data. It gives a clear idea about the actual facts. A quantitative method was followed in this study.

**Table 1:** Name of work: - Revised DPP for Vertical Extension of BCC Bhaban under the project “Strengthening of BCC by Development of structure, 4<sup>th</sup> floor to 10<sup>th</sup> floor

		Taka in Lac.
<b>A. Electrical (Internal Electrification )</b>		
i) Internal Electrification of main building	(Area=10551sq.mx1420/-)	149.82
ii) Special fittings fixture	L.S	20.00
iii) Internal Electrification for Auditorium	L.S	20.00
iv) Normal & Emergency MDB.SDB.DB control	L.S	20.00
<b>B. Electrical (External Electrification )</b>		
i) 400 KVA Generator including cables	1 Set.	70.00
ii) 2000KVA sub-Station equipment & HT. LT cable	1 Set.	180.00
iii) Compound security garden light * facade light	L.S	15.00
iv) Earthing with lighting arrester system	1 Set.	23.00
<b>C. Mechanical</b>		
i) Split type Air-cooler and Split ducted type air cooler system	600 Ton	600.00
ii) Passenger lift ( 2Nos x1600 kg.24 person 11 stop)	2Nos x 1600 kg.	90.00
iii) Pump motor (For lifting water )	1 No	16.00
iv) Fountain i/c pump control & cable	L.S	15.00
<b>D. IT Environment and support</b>		
i) Computer Networking system (LAN)	L.S	50.00
ii) Telephone & PABX system	L.S	20.00
iii) Access control system and entry scanner & security post	L.S	15.00
iv) PVC pipe laying	L.S	10.00
v) PA& Conference system	L.S	30.00
vi) Sound and stage lighting system	L.S	60.00
<b>E. Renewable energy</b>		
i) Solar energy plant (14KW) ( 14x3.00 Lac)		42.00
<b>F. Building Automation (E/M works ) safety and security</b>		
i) Fire Detection protection & Alarm system	L.S	140.00
ii) CCTV system	L.S	30.00
iii) Building Automation (Occupancy. sensor, light dimmer intelligent & energy saving automation	L.S	150.00
iv) Consultancy for building Automation, computer net working system,	L.S	5.00
<b>G. Other related works.</b>		
i) DESA/DESCO security fee	L.S	20.00
ii) Preparation of tender documents, honorium for TEC, TOC, Advertisement free etc.	L.S	5.00
	<b>Total Tk:</b>	<b>1795.82</b>

A questionnaire survey was adopted for collecting primary data from different stakeholders related to procurement activities of PWD and having an acquaintance with PPA 2006 and PPR 2008. For the in-depth study on compliance issues of PPR 2008, Questionnaire was given to all Division of PWD that are closely related to Electro-mechanical works with a general introduction of the research. Among them 20 (Twenty) Divisions replied with the procurement data of single project. Here both only closed ended questions were stipulated for getting the in-depth essence of procurement activities.

Before asking for filling the questionnaire, the general idea of the research objectives were exchanged with them. After the exchange of general idea of the research objectives, the questionnaire was given to them. They were requested to fill the questionnaire based on the actual data of a specific project under his/her territory. Some electronics means was also used to collect feedback from some of the PWD persons affiliated with the project.

b) Selection of Study Area

PWD Head Quarters and District offices were selected for collection of data in the questionnaire. Due to time constraint of the present study, it was not possible to collect data from all the districts. The study was mainly focused on the BCC Bhaban's Electro-mechanical works; As the implementation of work from the ministry wise project progress report has been

attached in Appendix C, from where we get the idea that most of the works of the project have been completed and some of them are ongoing and a few of them are not yet started as work order has recently been placed against those works. Especially those which are in the middle stage of their implementation were considered for the study, but some procurement information from the rough estimate of the works as stated bellow-

Table 2: Name of work:- Rough Estimate for Vertical Extension of BCC Bhaban under the project " Strengthening of BCC by Development of structure, 3<sup>rd</sup> phase (11<sup>th</sup> floor to 14<sup>th</sup> floor)

		Taka in Lac.
<b>A. Electrical (Internal Electrification )</b>		
i).Internal Electrification(Non Residential Building )	(Area=6677sq.mx1420/-)	94.81
ii). Special fittings fixture and metering system and safety control device	L.S	20.00
iii) Normal & Emergency MDB.SDB.DB control in/c L.T cable etc.	L.S	50.00
<b>B. Electrical (External Electrification )</b>		
i) 400 KVA Generator including cables	1 Set.	60.00
ii) Extension of Earthing with lightning arrester system	1Set.	15.00
iii) Compound lighting from roof	L.S	5.00
<b>C. Mechanical</b>		
i) Split type Air-cooler and Split ducted type air cooler system	350 Ton	400.00
ii) Passenger lift (1600 kg 24 person 15 stop with AVR)	(1No x50.0)	50.00
iii) Observation /capsule lift.(1000Kg) 15 person 15 stop with AVR	1 No	90.00
<b>D. IT Environment and support</b>		
i) Computer Networking system	L.S	40.00
ii) Telephone & PABX system	L.S	20.00
iii) PA& Conference system	L.S	30.00
vi) CCTV	L.S	20.00
v) PVC pipe laying (For Telephone, PABX, Intercom CCTV, internet etc.		8.00
vi) Access control system and entry scanner & security post	L.S	8.00
<b>E. Renewable energy</b>		
i) Solar energy plant	8Kw x3.00	24.00
ii) Shifting of solar energy plant from 10 <sup>th</sup> floor to 14 <sup>th</sup> floor roof top	L.s	2.00
<b>F. Building Automation (E/M works ) safety and security</b>		
i) Fire Detection protection & Alarm system	L.S	50.00
ii) Building Automation (Occupancy. sensor, light dimmer intelligent & energy saving automation	L.S	50.00
iii) Consultancy for building Automation, computer net working system, Fire protection and detection system etc.	L.S	5.00
<b>G. Other related works.</b>		
i) Preparation of tender documents, honorium for TEC, TOC, Advertisement free etc.	L.S	5.00
	<b>Total Tk:</b>	<b>1046.81</b>

We get the original approved official estimate on which the Project work was performed.

c) *Study Period*

Survey was conducted at different Division offices of PWD, Planning Commission, IMED, and TEC members of PWD from Roads and Highways Department (RHD) and Public Works Department (PWD) Dhaka, Bangladesh from December 2015 to May 2016.

d) *Sample Size*

For Questionnaire, the respondents were categorized in four different types namely i) PWD's

e) *Data processing and Analysis/Analytical Fram*

employee, ii) TEC Members, iii) Persons who are dealing with PWD's projects iv) Others. As there are numerous people are concerned with PWD's procurement activities of Electro-mechanical works, a total of 28 different officers given their data.

Projects for the study were randomly selected as PWD does not do a lot of Electro-mechanical Project work every year, and due to the time constrain of the dissertation.

*Table 4: KPI 6*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	4	14.3	14.3	14.3
	Good	13	46.4	46.4	60.7
	Very Good	11	39.3	39.3	100.0
	Total	28	100.0	100.0	

*Table 5: KPI 11*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	7.1	7.1	7.1
	Good	10	35.7	35.7	42.9
	Very Good	16	57.1	57.1	100.0
	Total	28	100.0	100.0	

As a means of processing, collected data have been cleaned, edited, arranged and coded before statistical analysis. The main statistical analytical tool used in this study was Statistical Package for Social Science (SPSS) to analyze and interpret the subject matter of the study and for preparing the frequency table & other tables and for constructing pie charts. 5-point Likert scale was used in the questionnaire to categorize the answers for easy analysis.

Microsoft Excel has been used for preparing Some of the tables related to the BCC Bhaban Project. Microsoft Word has been used for preparing the report.

### III. RESULT & DISCUSSION

Aim of this study is to find out the level of compliance of PPR 2008 by BCC Bhaban in its procurement activities. This study is specifically aimed to assess the gap of compliance and scope of improvement for implementation of PPR 2008 in BCC Bhaban vertical extension 3<sup>rd</sup> phase.

a) *Demographic overview of the respondents*

Questionnaire survey has been conducted among officers mainly responsible for Vertical Extension of BCC Bhaban under the project "Strengthening of BCC Bhaban by Development of structure". These officers are from PWD and involved in the project in

various engineering activities. Also the respondent holds different ranking and all of them are well acquainted with procurement process of BCC Bhaban extension 11<sup>th</sup> floor to 14<sup>th</sup> floor.

Below is a summary of demographic information of respondents,

Table 3: Summary of demographic information of the respondents

Respondent's	Frequen	Percent
<b>Organization</b>		
PWD	28	100.0
Total	28	100.0
<b>Designation</b>		
Assistant Engineer	9	32.1
Senior Assistant Engineer	6	21.4
Executive Engineer	3	10.7
Administrator/Consultant	6	21.4
Project Director	4	14.2
Total	28	100.0
<b>Relevancy with PWD</b>		
Employee	9	32.1
TEC Member	5	17.8
Dealing with BCC Bhaban	12	42.8
Others	2	7.1
Total	28	100.0
<b>Education Level</b>		
Masters'	3	10.7
Bachelor	24	85.7
Others	1	3.6
Total	28	100.0
<b>Training on PPA/PPR 2008</b>		
Yes	25	89.3
No	3	10.7
Total	28	100.0

b) Overview of survey questionnaire

The respondents were asked Seventeen (17) questions regarding compliance of PPR 2008 in BCC Bhaban's procurement activities for the Vertical extension from 11<sup>th</sup> floor to 14<sup>th</sup> floor. Questionnaire were

asked to the respondents on compliance KPIs in a 5-point Likert scale where as 1 for "Very Poor", 2 for "Poor", 3 for "Neutral", 4 for "Good" and 5 for "Very Good". Frequency distributions of response are shown in Table 2 and Table 3 respectively

*Table 6: KPI\_13*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	7.1	7.1	7.1
	Good	9	32.1	32.1	39.3
	Very Good	17	60.7	60.7	100.0
	Total	28	100.0	100.0	

*Table 7: KPI 14*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	1	3.6	3.6	3.6
	Poor	3	10.7	10.7	14.3
	Neutral	4	14.3	14.3	28.6
	Good	8	28.6	28.6	57.1
	Very Good	12	42.9	42.9	100.0
	Total	28	100.0	100.0	

*Table 8: KPI 19*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	1	3.6	3.6	3.6
	Poor	2	7.1	7.1	10.7
	Neutral	4	14.3	14.3	25.0
	Good	10	35.7	35.7	60.7
	Very Good	11	39.3	39.3	100.0
	Total	28	100.0	100.0	

*Table 9: KPI 20*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	3.6	3.6	3.6
	Neutral	7	25.0	25.0	28.6
	Good	9	32.1	32.1	60.7
	Very Good	10	35.7	35.7	96.4
	53.00	1	3.6	3.6	100.0
	Total	28	100.0	100.0	

*Table 10: KPI 21*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	3.6	3.6	3.6
	Neutral	11	39.3	39.3	42.9
	Good	7	25.0	25.0	67.9
	Very Good	9	32.1	32.1	100.0
	Total	28	100.0	100.0	

*Table 11: KPI 25*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Poor	1	3.6	3.6	3.6
	Neutral	10	35.7	35.7	39.3
	Good	10	35.7	35.7	75.0
	Very Good	7	25.0	25.0	100.0
	Total	28	100.0	100.0	

*Table 12: KPI 31*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	1	3.6	3.6	3.6
	Poor	4	14.3	14.3	17.9
	Neutral	3	10.7	10.7	28.6
	Good	14	50.0	50.0	78.6

	Very Good	6	21.4	21.4	100.0
	Total	28	100.0	100.0	

Table 13: KPI\_33

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	2	7.1	7.1	7.1
	Poor	1	3.6	3.6	10.7
	Neutral	7	25.0	25.0	35.7
	Good	9	32.1	32.1	67.9
	Very Good	9	32.1	32.1	100.0
	Total	28	100.0	100.0	

Table 14: KPI\_35

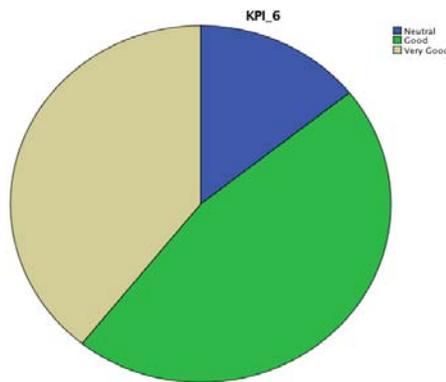
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Poor	6	21.4	21.4	21.4
	Poor	2	7.1	7.1	28.6
	Neutral	4	14.3	14.3	42.9
	Good	8	28.6	28.6	71.4
	Very Good	8	28.6	28.6	100.0
	Total	28	100.0	100.0	

c) Overview of the Key Informant Interview

Key informant interview has been conducted with several engineers involved in strengthening of BCC Bhaban by development of structure, 3<sup>rd</sup> phase (11<sup>th</sup> floor to 14<sup>th</sup> floor). Most of the key informants mentioned that before PPR, General Financial Rules (GFR) was applied for the procurement of goods, works and services. The monitoring and evaluation of the then procurement activities were not so structured. These all were streamlined with the introduction of PPR 2003 and strengthened after PPR 2008.

All key informants were asked about the compliance of KPIs and in-depth opinion was expected for a clear view of the issue, understanding the same and concluding thereof. Also, the key informants were asked about the problems of compliance of PPR 2008 in their respective procurement activities. The opinion of the key informants were noted down and used for analyzing the findings of the questionnaire survey.

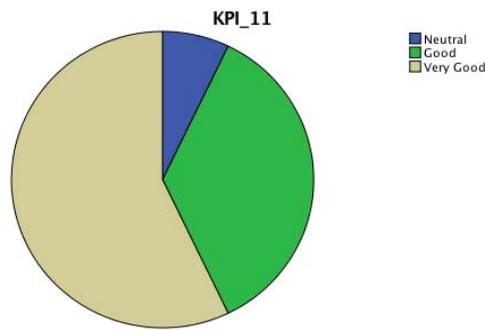
d) Findings of the questionnaire survey, analysis and discussion



KPI 6: BCC Bhaban is maintaining time for 'publishing Advertisement and Tender submission deadline'

The perception of the respondents varied for this question where 14% respondent encircled 'neutral' option of the questionnaire. 46% marked it as 'good', and 39% said its 'Very Good'. It is assumed that BCC

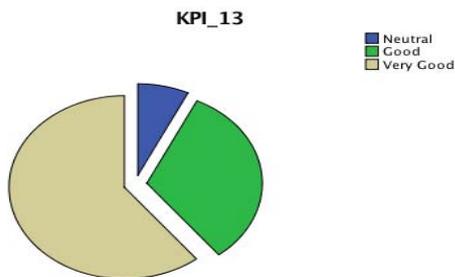
Bhaban is fairly following the rule, as the standard deviation yield small dispersion in responses. The mean, median, and mode of the responses are 4.25, 4.00 and 4.00 respectively.



**KPI 11:** In BCC Bhaban, TOC consist of at least one member from TEC

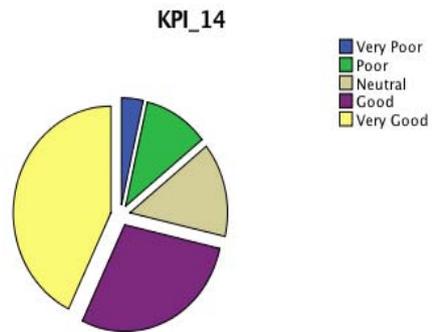
Majority respondents selected two options: 'Very good' and 'Good'. 57.1% of respondents answered the question as 'Very good' and 37.7% answered it as 'Good'. Only 7.1 % answered it as 'neutral', no 'poor' or 'very poor' were being recorded. This express that BCC Bhaban is fairly complying to the Rule 7 of PPR 2008 where Tender Opening Committee (TOC) is always consisted of at least one member from TEC. The standard deviation of the response is 0.63828 which means a small effect on the study result. The mean, median and mode of the responses are 4.50, 5.00 and 5.00 respectively.

According to Schedule II [Rule 7] of PPR 2008, Tender Opening Committee (TOC) must include one (1) member from Tender Evaluation Committee (TEC). From the perceptions of the respondents of questionnaire survey and responses of the key informants, it can be said that BCC is complying the Rule 7 of PPR 2008 as the responses are highly positive to this issue.



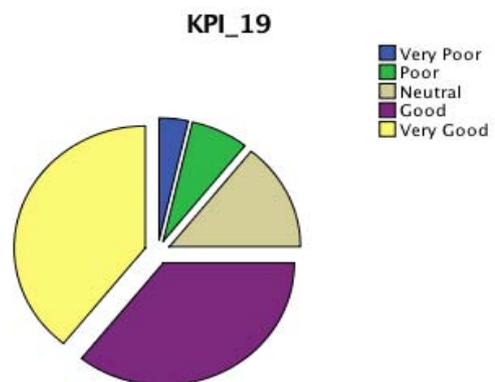
**KPI 13:** BCC Bhaban followed the rule of including Two external members for TEC

60.7% of the respondents have chosen 'Very good' while 32.1% verdict 'Good' on that question. 7.1% of the respondents remained 'neutral'. No one selected 'poor' or 'very poor' option. The standard deviation of the response is 0.63725, which means small effect on the study result. It indicates that BCC Bhaban is complying the Rule 8 of PPR 2008 very fairly and two external members are included in the Tender Evaluation Committee in general. The mean, median and mode of the responses are 3.97, 4.00 and 5.00 respectively.



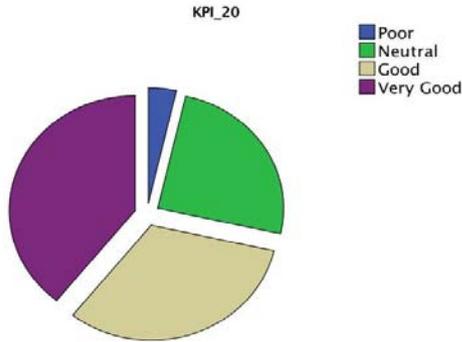
**KPI 14:** BCC Bhaban followed standard time between tender opening and tender evaluation

In response to this question, 42.9% of the respondent have given their opinion as 'Very Good' while 28.6% opted for 'Good', 14.3% opted for 'Neutral' response to the question. 10.7% & 3.6% opted for 'poor' or 'very poor' respectively. The mean, median and mode of the responses are 3.964, 4.00 and 5.00 respectively. The standard deviation of the response is 0.63725 which means a small effect on the study result is present. It indicates that BCC Bhaban is complying to the Rule 36 of PPR 2008 keenly following standard time between tender opening and tender valuation. Key informant interviews also reflected in the similar manner.



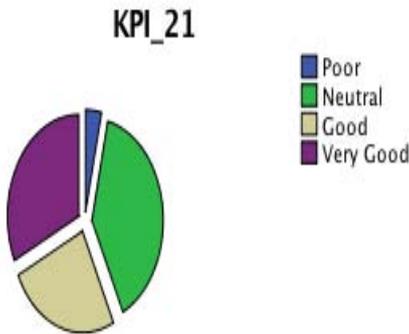
**KPI 19:** BCC Bhaban followed standard time between submission and approval of Tender Evaluation Report (TER)

In this question, 39.3% respondents choose 'Very good' while 35.7% reported as 'Good' and 14.3% shown 'Neutral' response to the question. 7.1% marked it as 'poor' while 3.6% said its 'very poor'. The mean, median, mode and standard deviation of the responses are 4.00, 4.00, 5.00 and 1.088 respectively.



**KPI 20:** In BCC Bhaban, tenders are approved by proper CAA with DFP

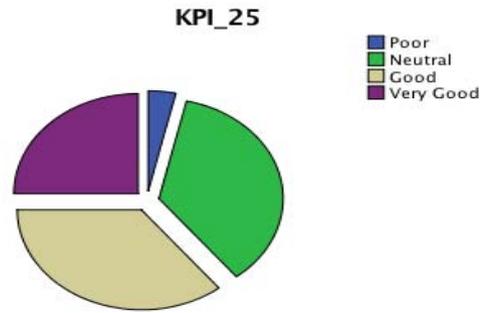
In response 35.7% of the respondent have given their opinion as 'Very good' while 32.1% reported as 'Good' and 25% ticked 'Poor' as response. 3.6% gave verdict for 'poor' none opted for 'very poor'. The mean, median, mode and standard deviation of the responses are 4.77, 5.78, 4.00 and 5.00 respectively. Similar results were found among the opinions of the interviewee while conducted the key informant interview. A standard deviation of 9.294 also indicates a significant effect on the study.



**KPI 21:** In BCC Bhaban, TEC submits TER directly to the CAA

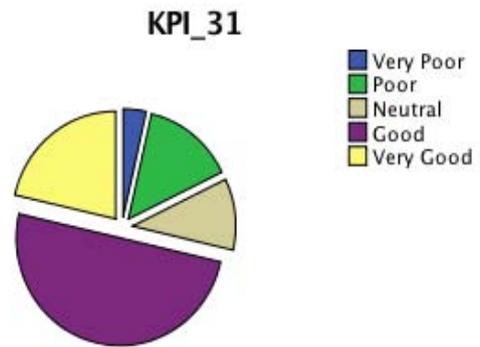
The perceptions of the respondents on this question in this question were also very scattered, 32.1% of the respondent opted for 'very good' while the minimum 3.6% ticked 'Poor'. The other 25% respondents chose 'Good' and 39.3% remained 'Neutral' in their opinion. However, no 'Very poor' answer was received. The mean, median, mode and standard deviation of the responses are 3.857, 4.00, 3.00 and 0.9315 respectively. Though majority of the respondent's perception is 'Very good', but it can be said that BCC Bhaban is complying

this rule in a fairly basis as there some respondents choose 'Poor' option.



**KPI 25:** In BCC Bhaban, timeline between approval of TER and issuance of NOA is followed properly.

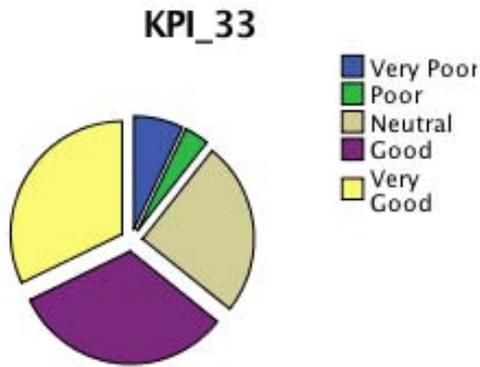
In response to this question, respondents' choices were also scattered. 25% of the respondents (60%) answered the question as 'Very Good' and 35% answered it as 'Good'. 35.7% marked as 'neutral', and 3.6% respondents went for poor'. The mean, median, mode and standard deviation of the responses are 3.82, 4.00, 3.00 and 0.862 respectively. According to the responses regarding this requirement of PPR 2008, the present study indicates that BCC is fairly comply with this timeline.



**KPI 31:** In BCC Bhaban, liquidated damage clause is imposed in the contracts where applicable as per Rule 39 (27)

In response to this question also, respondents' choices were also scattered majority of the respondents 50% answered the question as 'Good', while 21.4% opted for 'Very Good', 'Neutral' 10.7%, 'Poor' 14.3% and 'Very poor' 3.6%. Thus, there is an overall positive response to the question meaning. The mean, median, mode and standard deviation of the responses are 3.71, 4.00, 4 and 1.083 respectively.

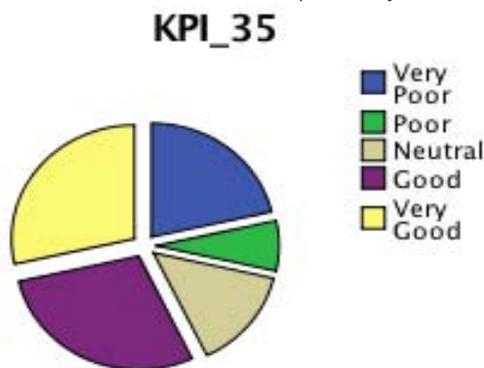
As per Rule 39 (27) of PPR 2008, it is compulsory to include the liquidated damage clause in the contracts where applicable. Though the present questionnaire survey indicates an overall positive result towards imposing liquidated damage clause in the contract but the key informants' does not validate this.



**KPI 33:** In BCC Bhaban, contractor payment is timely disbursed as per Rule 39 (22)

In response to this question, the respondents had shown a mixed response of their perceptions. 32.1% of the respondents opted for 'Very Good' while the same number of respondents for 'Good'. Among others, 25% opted for neutral, poor 3.6% & very poor 7.1%.shown their perception as 'Poor' while the rest 2.9% only replied as 'Very good'. There was no one answered the question as 'Very poor'. This has been shown in Table 3 and graphically expressed in Chart 10. The mean, median, mode and standard deviation of the responses are 3.11, 3.00, 3 and 0.676 respectively. While talked with the key informants, there found a perception that contractor's payment is timely disbursed.

In this question equal number of respondents 28.6% marked it 'Very poor' and 'Good'. While 14.3% remain 'Neutral' in their perception 7.1% was in favor of the 'Poor' opinion. However, 21.4% stated their perception to this question as 'Very Poor'. The mean, median, mode and standard deviation of the responses are 3.35, 4.00, 4.00 and 1.5205 respectively.



**KPI 35:** In PWD, interest is paid for delayed payment regularly

Payment of interest for delayed payment is a mandatory requirement of PPR 2008. However, from the present study, it can be said that BCC Bhaban is not paying any interest for a delayed payment. While conducting key informant interview, the respondents

expressed their opinion candidly that as there no provision of sufficient fund in the contract, the contractors never paid for a delayed payment.

#### IV. CONCLUSION

Compliance checking of PPR 2008 is a crucial issue for insuring good standards and value for money in the public procurement. The PPRP II has added a new dimension in the field of monitoring in the sense that it envisages to assess the compliance of the provisions of PPA-2006 and PPR-2008. This has made a shift from the existing approach and methods in dealing with procurement using public funds. Though awareness to some extent about PPA 2006 and PPR 2008 has already been developed within the officials and staffs of BCC Bhaban through mandatory application of PPR 2008 in practice and training, it will certainly take some time to get momentum of the reform activities.

The present study result shows an adherence to the rules of PPR 2008 in BCC Bhaban in carrying out most of the compliance related KPIs. Though varied in different quarters of the years, however it shows a gradual improvement since starting of monitoring.

In respect of KPI 6 (Average number of days between publishing of advertisement and Tender submission deadline), KPI 11 (Percentage of cases TOC included at least ONE member from TEC), KPI 13 (Percentage of cases TEC included Two external members outside the Ministry or Division), KPI 14 (Average number of days between Tender opening and completion of evaluation), KPI 19 (Average number of days taken between submission of Tender Evaluation Report and approval of contract) and KPI 20 (Percentage of Tenders approved by the proper financial delegated authority) and KPI 25 (Average number of days between final approval and Notification of Award (NOA)), BCC Bhaban is fairly following the rules. There is great scope and need for improvement in these areas as to have a 100% compliance of PPR 2008. However, BCC Bhaban's performance in the areas of KPI 21 (Percentage of cases TEC submitted report directly to the Contract Approving Authority where Approving Authority is HOPE or below), KPI 31 (Percentage of Contracts having liquidated damage imposed for delayed delivery/completion), KPI 35 (Percentage of Contracts where interest for delayed payments was made) are not satisfactory and needs to improve these to a great extent. Moreover, compliance of KPI 33 (Average number of days taken to release payment from the date of certificate of PM/ Engineer) need to investigate more as there are ambiguity among the findings of present study.

#### IV. RECOMENDATION

From the present study, in BCC Bhaban Project, PPR 2008 is being complied around 70%. This is seen from the viewpoint of compliance of KPIs which are only 17 out of 45 key procurement performance indicators. For further improvement, following recommendations are drawn based on the study:

- Instead of traditional procedure, submission of TER directly to the Contract Approving Authority where Approving Authority is HOPE or below, should be practiced properly to ensure the compliance of Rule 36(3) of PPR 2008. The TEC should be empowered and every member of the TEC should have an understanding of this regulatory requirement. Proper mechanism should be developed within BCC Bhaban Project so that it can be complied.
- Tender should be floated only after having sufficient fund. This would ensure the timely payment to the contractor [Rule 39 (22)]
- Liquidated damage clause to be properly applied as per Rule 39 (27) of PPR 2008. The amount of liquidated damage per day or per week should be calculated on the basis of approximate real monetary loss for delay. Compensation event needs to be properly incorporated in the tender document so that contractors can get appropriate compensation if the situation arises so.
- Provision for payment of interest in case of delayed payment should be kept in the contract and implemented accordingly so that the rights of the contractor are protected.
- More collaborative engagement of the key stakeholders of the project has been recommended for the improvement of the requiring body satisfaction.
- Analyzing the **Appendix C**, we observe that most of the works have been completed, some of them are in progress and a few work orders are still in queue to be processed, that's why the contract value and cost overrun (if any) have not yet been calculated. As the study was based on PPR 2008, a comparatively new project was selected which was started after 2009. But some necessary steps can also be recommended to control the cost, quality and time constraint of BCC Bhaban Project.
- Intensive training programs should be arranged on Electronic Government Procurement as we know that e-GP follows PPA @006 & PPR 2008 in an effective and efficient way

#### REFERENCES RÉFÉRENCES REFERENCIAS

1. Bangladesh Computer Council Electro mechanical Works, tender document, tender opening report, tender evaluation report, project completion report; implemented by Public Works Department (PWD) E/M Division-7, Sher-e-Bangla Nagar, Dhaka.

2. Central Procurement Technical Unit (CPTU), Implementation Monitoring and Evaluation Division (IMED), Ministry of Planning (MoP), Government of the People's Republic of Bangladesh, retrieved on 19 February 2013 from <http://www.cptu.gov.bd>
3. D. Velimirovic, M. Velimirovic and R. Stankovic 2011. Role and Importance of Key Performance Indicators measurement. *Serbian Journal of Management* 6 (1) (2011) 63 – 72
- Hoque, R., 2010. 'Public Procurement Law in Bangladesh: From Bureaucratisation to Accountability', *NUJS LAW REVIEW*, vol.3, no.3, pp. 281-29, retrieved on 20 June 2011 from <http://www.nujslawreview.org>
4. MoF (1998). General Financial Rules (GFR), Finance Division, Ministry of Finance (MoF), Government of the People's Republic of Bangladesh, retrieved on 19 February 2013 from [http://mof.gov.bd/en/index.php?option=com\\_content&view=article&id=48&Itemid=1](http://mof.gov.bd/en/index.php?option=com_content&view=article&id=48&Itemid=1)
5. MoF (2004). Delegation of Financial Powers for Development Projects, Finance Division, Ministry of Finance (MoF), Government of the People's Republic of Bangladesh, dated: 22 December 2004
6. MoP (2008). Public Procurement Act (PPA) (2006), Central Procurement Technical Unit (CPTU), Implementation Monitoring and Evaluation Division (IMED), Ministry of Planning (MoP), Government of the People's Republic of Bangladesh. Bangladesh Gazette, dated: 27 January 2008
7. MoP (2008). Public Procurement Rules (PPR) (2008), Central Procurement Technical Unit (CPTU), Implementation Monitoring and Evaluation Division (IMED), Ministry of Planning, Government of the People's Republic of Bangladesh. Bangladesh Gazette, dated: 28 January 2008
8. MoP (2012). Annual Development Programme (ADP) 2012-2013. Ministry of Planning (MoP), Government of the People's Republic of Bangladesh
9. MoP (2012). Revised Annual Development Programme (RADP) 2011-2012. Ministry of Planning (MoP), Government of the People's Republic of Bangladesh
10. SRGB (2012). Half-yearly Reports (July-December 2010 to January-June 2012) submitted to CPTU, IMED. Survey and Research Group of Bangladesh (SRGB)
11. SRGB (2012). Quarterly Reports (April-June 2010 to April-June 2012) submitted to CPTU, IMED. Survey and Research Group of Bangladesh (SRGB)