

# **Appendix (A)**



**SUDAN UNIVERSITY FOR SCIENCES AND TECHNOLOGY**  
**COLLEGE OF GRADUATE STUDIES**  
**MASTER OF SCIENCES IN CONSTRUCTION MANAGEMENT**  
**Questionnaire**

*This questionnaire examines your views, about project management; we guarantee that all information entered here will be use only for the purpose of evaluating your opinion about project management, personal information will not be provided to any other parties, except that reports from this survey may list the names of peoples who submitted the questionnaire in appreciation for their time.*

**Section 0 (personal information)**

*Name:..... Designation .....*

*Educational level..... Year of graduation .....*

**Notice: this questionnaire should take less than 30 minutes to complete**

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**Section I**

Please mark the most suitable answer according to the project you are involved.

A) In managing huge size projects, as you are involved, the project organization structure usually prepared:

- Before tendering
- After awarding the contract
- Never

B) At tendering phase, the calculation of unit rate for each activity depends on:

- Similar previous job
- Brake down of cost after visiting site
- The project manager experience

C) Is it important to choose construction technology & methodology at pre-tendering phase?

- Yes
- No
- Into extents, *please explain* .....  
.....  
.....

D) From your site observation, is it necessary for project manager to have an experience in managing similar project of size, scope, and complexity?

- Yes
- No
- Not sure

E) Was there any formal processes used to break down the work and estimate task duration?

- Yes
- No
- Not sure

**Section II**

A) Huge size projects needs a manger, with general management knowledge

- Yes
- No
- In to extent, *please explain* .....  
.....  
.....

B) In managing similar projects like you involved, is it necessary to have a project manager with a previous knowledge of this domain?

- Yes

- No
- In to extent, *please explain* .....  
.....  
.....  
.....

C) Scale the importance of computer applications knowledge in managing projects like you involved:

- 10 points
- 5 points
- zero

# **Appendix (B)**

# **Appendix (C)**

## Frequency Table for section (0)

### Designation

	Frequency	Percent
Civil	13	57.0
Site level	3	14.0
Design Eng	2	7.0
Projects	5	21.0
Total	23	100.0

### Educational Level

	Frequency	Percent
Bsc	13	57.1
Dip	10	42.9
Total	23	100.0

### Year of Graduation

	Frequency	Percent
1985	2	6.7
1990	3	13.3
1994	2	6.7
1995	2	6.7
1998	6	26.7
1999	5	20.0
2000	3	13.3
Total	23	100

## Frequency Table for sections (I) and (II)

### A) In managing huge size projects, as you are involved the project

	Frequency	Percent
Before tendering	5	21.0
After a warding The contract	18	79.0
Total	23	100.0

**B) At tendering phase the calculation of unit for each activity Depends on**

	Frequency	Percent
Similar previous job	10	43.0
Brake down of cost after visiting site	2	7.0
The project manager experience	11	50.0
Total	23	100.0

**C) Is it important to choose construction technology & Methodology at pre-tendering phase**

	Frequency	Percent
yes	2	7.0
no	19	86.0
into extents please explain	2	7.0
Total	23	100.0

**D) From your site observation is it necessary for project manger**

	Frequency	Percent
yes	7	28.6
no	8	35.7
Not sure	8	35.7
Total	23	100.0

**E) Was there any formal processes used to brea  
Down the work and estimate task duration**

	Frequency	Percent
No	13	57.1
Not sure	10	42.9
Total	23	100.0

## Section (II)

### A) Huge size project needs a manager with general a management Knowledge

	Frequency	Percent
Yes	3	14.0
No	17	71.0
into extents please explain	3	14.0
Total	23	100.0

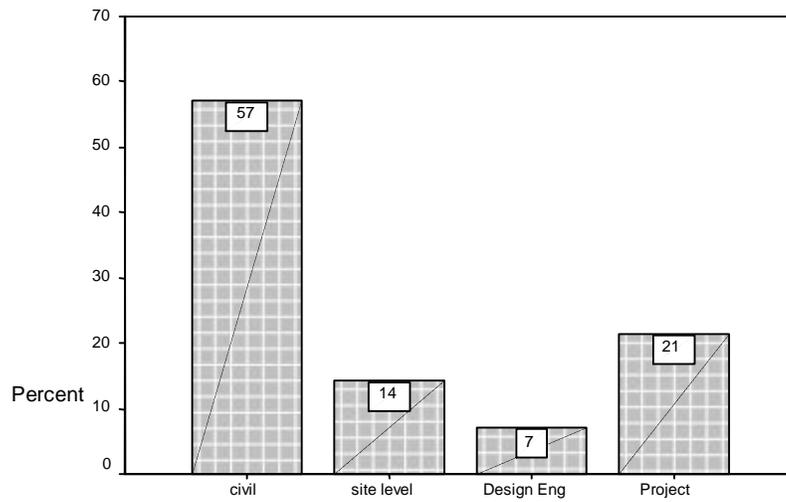
### B) In managing similar projects like you involved is it necessary to hav

	Frequency	Percent
yes	10	42.9
no	10	42.9
into extents please explain	3	14.3
Total	23	100.0

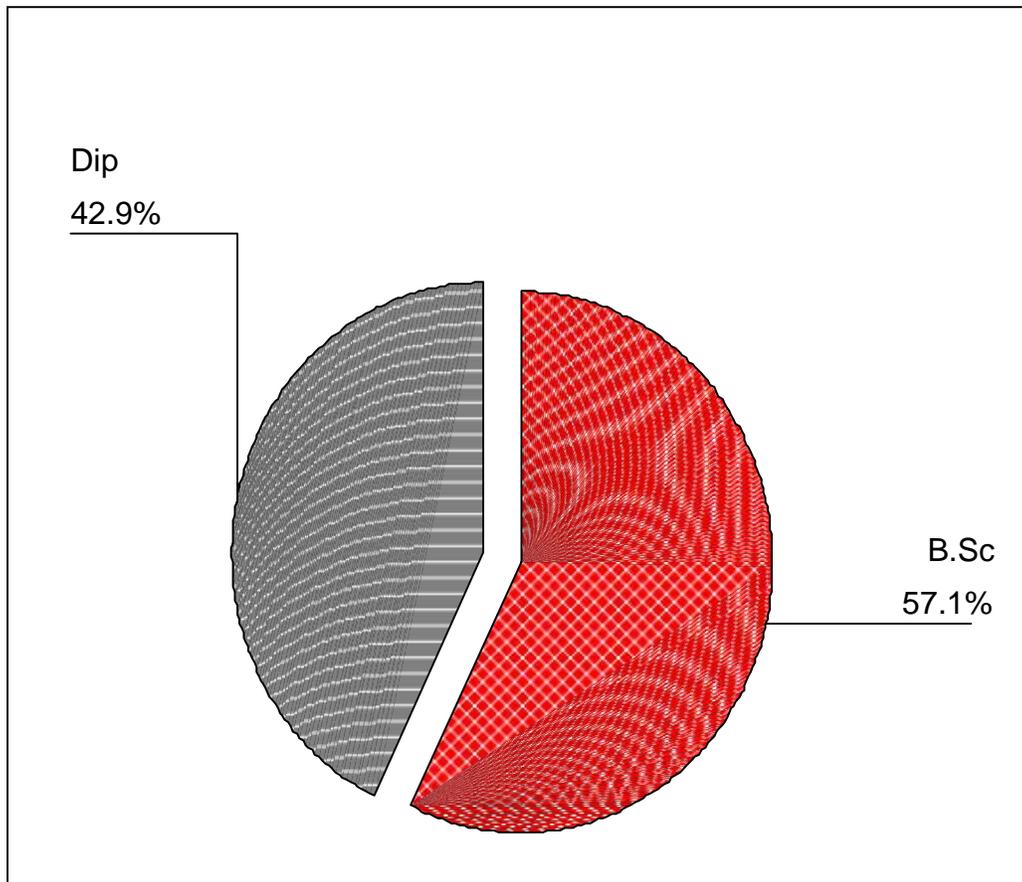
### C) Scale the importance of computer applications Knowledge in managing projects like you involved

	Frequency	Percent
Valid 10 points	7	28.6
5 points	11	50.0
zero	5	21.4
Total	23	100.0

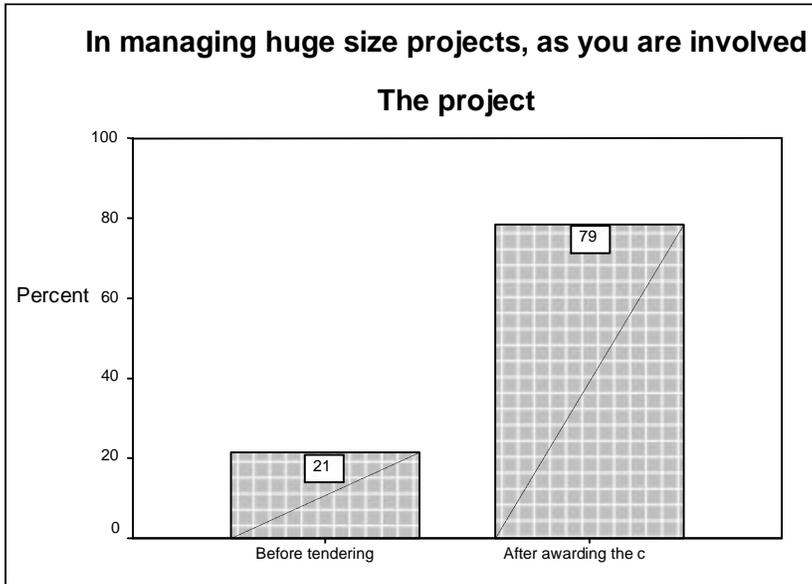
## Charts



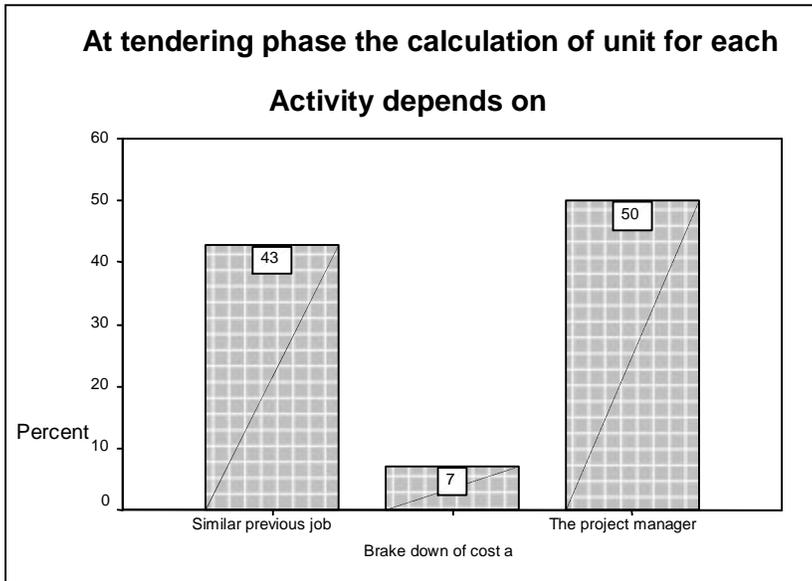
## Designation



## Educational Level

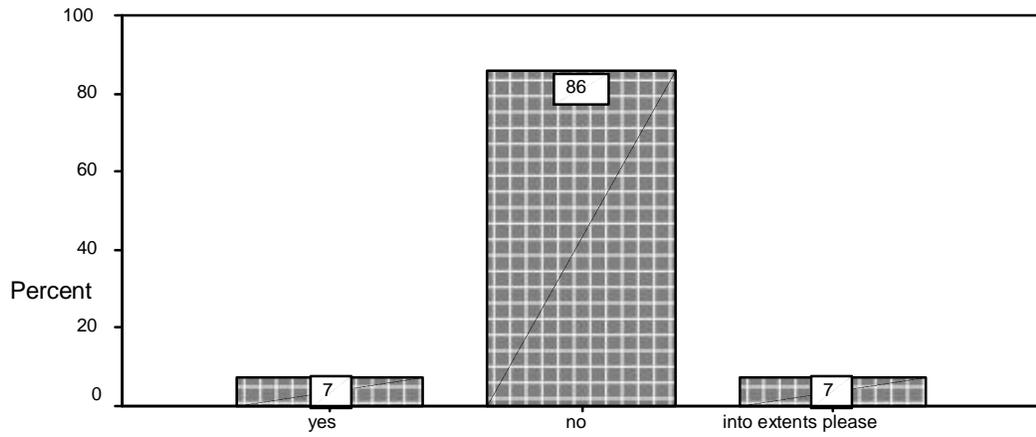


**Level of application of the pre-tendering planning**



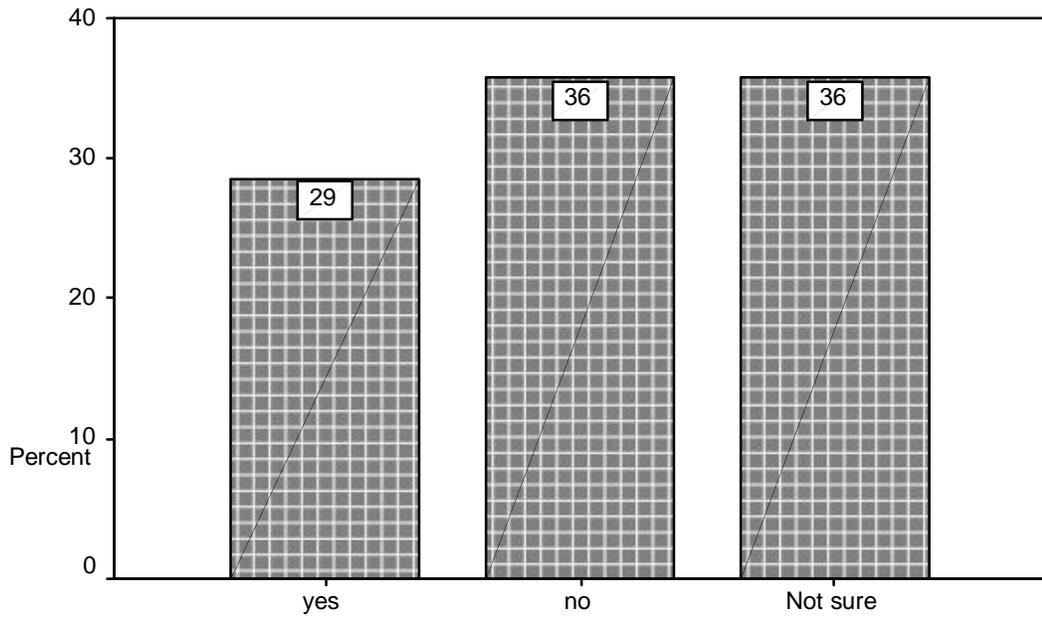
**Level of application for the preliminary planning**

**Is it important to choose construction technology  
& methodology at pre-te**

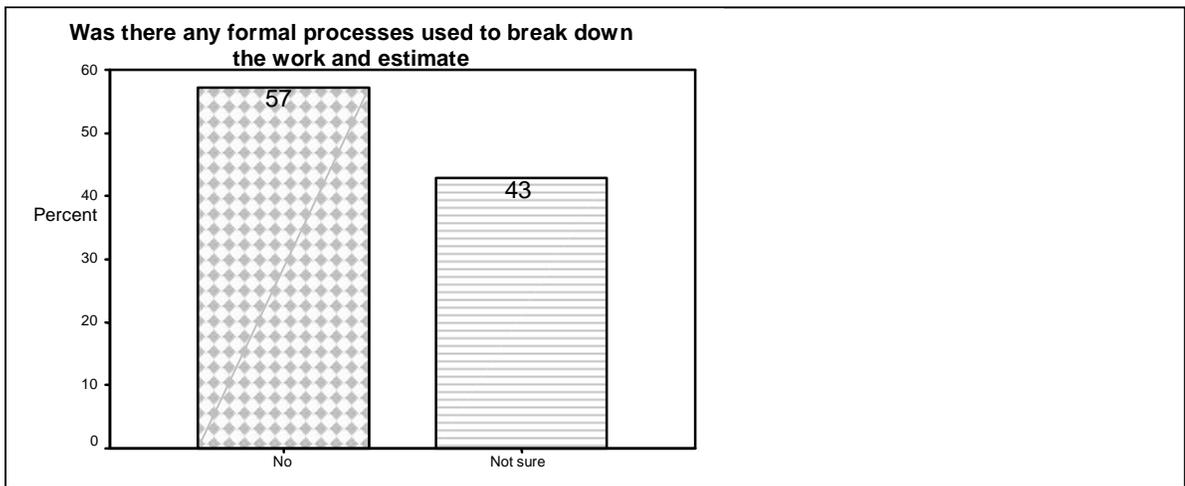


**Level of application of the pre-tendering planning**

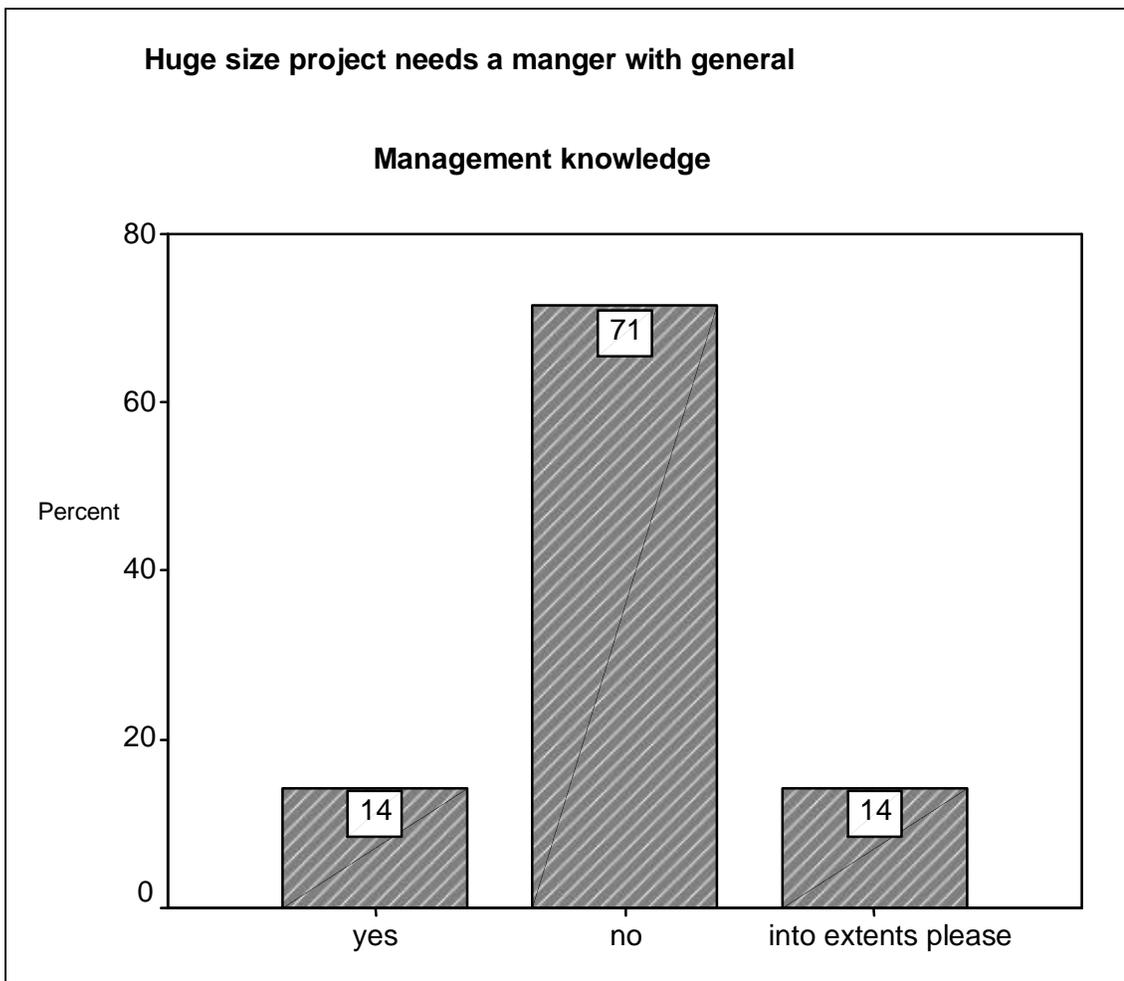
**From your site observation is it necessary for  
Project manger**



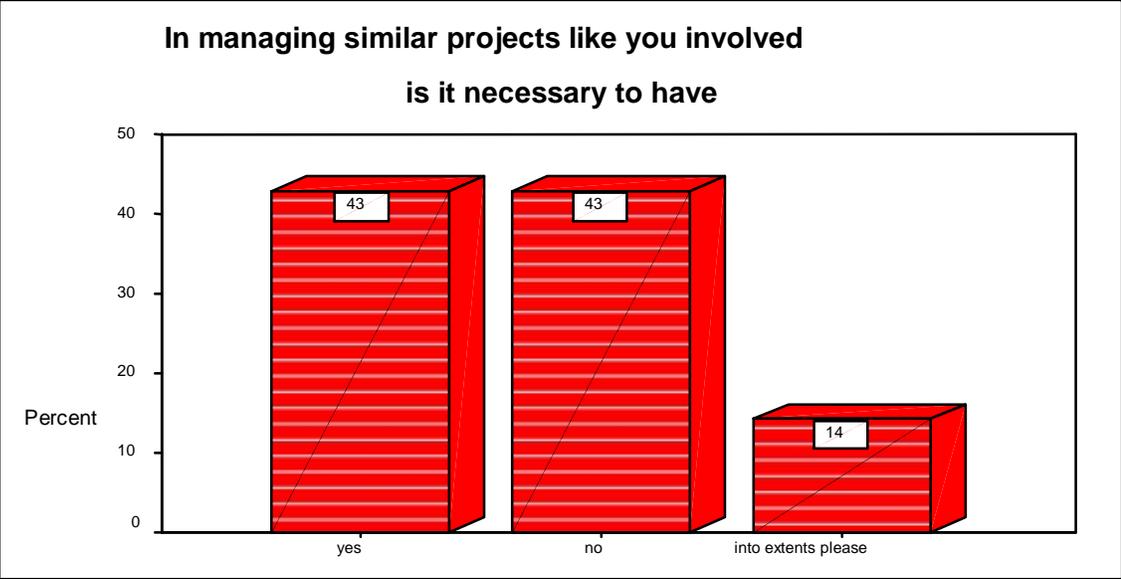
**Level of application of the pre-tendering planning**



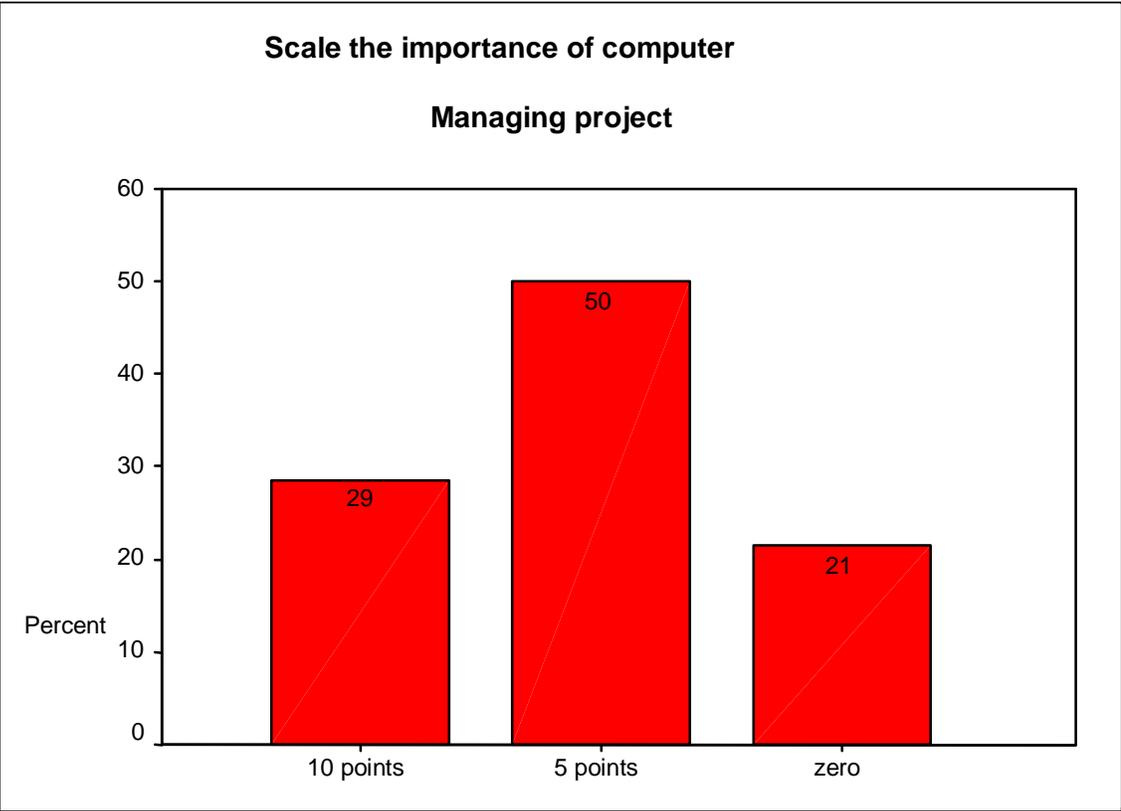
**Level of application of the pre-tendering planning**



**The importance of general management knowledge**



**The importance of previous knowledge of project domain**



**The importance of computer knowledge in managing huge projects**

## Cross tabs

**Designation \* Educational Level Cross tabulation**

		Educational Level		Total
		Bsc	Dip	
Designation	Civil	5 21.4%	8 35.7%	13 57.1%
	site level	1 4.8%	2 9.5%	3 14.3%
	Design Eng	2 7.0%		2 7.0%
	Projects	5 21.4%		5 21.4%
Total		13 57.1%	10 42.9%	23 100.0%

**Designation \* In managing huge size projects,as you are involved the project Crosstabulation**

		In managing huge size projects,as you are involved the project		Total
		Before tendering	After awarding the contract	
Designation	Civil	5 21.4%	8 35.7%	13 57.1%
	site level		3 14.3%	3 14.3%
	Design Eng		2 7.0%	2 7.0%
	Projects		5 21.4%	5 21.4%
Total		5 21.4%	18 78.6%	23 100.0%

**Designation \* At tendering phase the calculation of unit for each activity depends on  
Crosstabulation**

		At tendering phase the calculation of unit for each activity depends on			Total
		Similar previous job	Brake down of cost after visiting site	The project Manager experience	
Designation	Civil	5 21.4%	2 7.1%	6 28.6%	13 57.1%
	Site level	3 14.3%			3 14.3%
	Design Eng			2 7.0%	2 7.0%
	Projects	2 7.1%		3 14.3%	5 21.4%
Total		10 42.9%	2 7.1%	11 50.0%	23 100.0%

**Designation \* From your site observation is it necessary for project manger  
Crosstabulation**

		From your site observation is it necessary for project manger			Total
		yes	no	Not sure	
Designation	Civil	3 14.3%	4 14.3%	6 28.6%	13 57.1%
	site level		3 14.3%		3 14.3%
	Design Eng	2 7.0%			2 7.0%
	Projects	2 8.6%	1 4.2%	2 8.6%	5 21.4%
Total		7 28.6%	8 35.7%	8 35.7%	23 100.0%

**Designation \* was there any formal processes used to break down the work and estimate task duration Cross tabulation**

		Was there any formal Processes used to break down the work and estimate task Duration		Total
		No	Not sure	
Designation	Civil	8 35.7%	5 21.4%	13 57.1%
	site level		3 14%	3 14%
	Design Eng	2 7.0%		2 7.0%
	Projects	3 13.48%	2 7.0%	5 21.4%
Total		13 57.1%	10 42.9%	23 100.0%

**Designation \* Huge size project needs a mnager with general management knowledge Crosstabulation**

		Huge size project needs a manger with general management knowledge			Total
		yes	no	into extents please explain	
Designation	Civil	3 14.3%	5 35.7%	1 4.3%	13 57.1%
	site level		3 14.3%		3 14.0%
	Design Eng		2 7.0%		2 7.0%
	Projects		3 14.3%	2 8.6%	5 21.4%
Total		3 14.3%	17 71.4%	3 14.3%	23 100.0%

**Designation \* In managing similar projects like you involved is it necessary to have Crosstabulation**

		In managing similar projects like you involved is otr necessary to have			Total
		yes	no	into extents please explain	
Designation	Civil	7 31.1%	6 26%		13 57.1%
	site level		2 8.6%	1 4.3%	3 14.0%
	Design Eng	2 7.0%			2 7.0%
	Projects	1 4.3%	2 8.6%	2 8.6%	5 21.4%
Total		10 42.9%	10 42.9%	3 14.3%	23 100.0%

**Designation \* Scale the importance of computer applications knowledge in managing projects like you involved Crosstabulation**

		Scale the importance of computer applications knowledge in managing projects like you involved			Total
		10 points	5 points	zero	
Designation	Civil	6 28.6%	6 28.6%	1 4.3%	13 57.1%
	site level		1 4.3%	2 8.6%	3 14.0%
	Design Eng		2 7.0%		2 7.0%
	Projects	1 4.3%	2 8.6%	2 8.6%	5 21.4%
Total		7 28.6%	11 50.0%	5 21.4%	23 100.0%

## Chi-Square Test

### Section (I)

A) In managing huge size projects, as you are involved the project

	Observed N	Expected N	Residual
Before tendering	5	11.5	-6.5
After awarding the contract	18	11.5	6.5
Total	23		

#### Test Statistics

	In managing huge size projects, as you are involved the project
Chi-Square	1.13
Asymp. Sig.	.033

## Chi-Square Test

B) At tendering phase the calculation of unit for each activity depends on

	Observed N	Expected N	Residual
Similar previous job	10	7.6	2.4
Break down of cost after visiting site	2	7.6	-5.6
The project manager experience	11	7.6	3.4
Total	23		

#### Test Statistics

	At tendering phase the calculation of unit for each activity depends on
Chi-Square	6.4
Asymp. Sig.	.109

## Chi-Square Test

C) Is it important to choose construction technology & methodology at pre-tendering phase

	Observed N	Expected N	Residual
yes	2	7.6	-5.6
no	19	7.6	11.4
into extents please explain	2	7.6	-5.6
Total	23		

#### Test Statistics

	Is it important to choose construction technology & methodology at pre-tendering phase
Chi-Square	25.35
Asymp. Sig.	.000

## Chi-Square Test

**D) From your site observation is it necessary for project manager**

	Observed N	Expected N	Residual
yes	7	7.6	-0.6
no	8	7.6	.04
Not sure	8	7.6	.04
Total	23		

### Test Statistics

	From your site observation is it necessary for project Manager
Chi-Square	0.089
Asymp. Sig.	.931

## Chi-Square Test

**E) Was there any formal processes used to break down the work and estimate task duration**

	Observed N	Expected N	Residual
No	13	11.5	1.5
Not sure	10	11.5	-1.5
Total	23		

### Test Statistics

	Was there any formal processes used to break down the work and estimate task duration
Chi-Square	0.39
Asymp. Sig.	.593

## Section (II)

## Chi-Square Test

**A) Huge size project needs a manager with general management knowledge**

	Observed N	Expected N	Residual
yes	3	7.6	-4.6
no	17	7.6	9.4
into extents please explain	3	7.6	-4.6
Total	23		

### Test Statistics

	Huge size project needs a manager with general management knowledge
Chi-Square	15.0
Asymp. Sig.	.010

### Chi-Square Test

B) In managing similar projects like you involed is otr necessary to have

	Observed N	Expected N	Residual
yes	10	7.6	2.4
no	10	7.6	2.4
into extents please explain	3	7.6	-4.6
Total	23		

#### Test Statistics

	In managing similar projects like you involed is otr necessary to have
Chi-Square	4.30
Asymp. Sig.	.319

### Chi-Square Test

C) Scale the importance of computer applications knowledge in managing projects like you involved

	Observed N	Expected N	Residual
10 points	7	7.6	0.6
5 points	11	7.6	3.4
zero	5	7.6	-2.6
Total	23		

#### Test Statistics

	Scale the importance of computer applications knowledge in managing projects like you involved
Chi-Square	2.45
Asymp. Sig.	.395