

THE ROLE OF TOTAL QUALITY MANAGEMENT AS A KEY INTERVENTION IN SMALL CONSTRUCTION CONTRACTOR DEVELOPMENT IN SOUTH AFRICA

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MARCH 2008

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A QUALITY DEFINED

- 1. QUALITY IS NOT NECESSARILY INDICATIVE OF EXCELLENCE OR SPECIAL MERIT**

A. QUALITY DEFINED

2. INSPECTION USUALLY ONLY IDENTIFIES FAULTS AFTER IT OCCURRED, OFTEN RESULTING IN ADVERSARIAL RELATIONSHIPS

A. QUALITY DEFINED

3. QUALITY IS COMPLIANCE WITH STATED/DEFINED REQUIREMENTS: FIT FOR PURPOSE PRODUCTS AND SERVICES

OR

A. QUALITY DEFINED

4. QUALITY (B.S.) IS THE TOTALITY OF FEATURES AND CHARACTERISTICS OF A PRODUCT OR SERVICE THAT BEAR UPON ITS ABILITY TO SATISFY STATED OR IMPLIED NEEDS

A. QUALITY DEFINED

5. QUALITY ASSURANCE (B.S.) IS THE PLANNED AND SYSTEMATIC ACTIONS NECESSARY TO PROVIDE ADEQUATE CONFIDENCE THAT A PRODUCT OR SERVICE WILL SATISFY GIVEN REQUIREMENTS

A. QUALITY DEFINED

6. QUALITY MANAGEMENT (B.S.) IS THE OVERALL MANAGEMENT TASK THAT DETERMINES AND IMPLEMENTS A QUALITY POLICY

A. QUALITY DEFINED

7. QUALITY AUDITING IS A SYSTEMATIC AND INDEPENDENT EXAMINATION TO DETERMINE:

- **WHETHER QUALITY ACTIVITIES AND RELATED RESULTS COMPLY WITH PLANNED ARRANGEMENTS**
- **WHETHER THESE ARRANGEMENTS ARE IMPLEMENTED EFFECTIVELY**
- **WHETHER THESE ARRANGEMENTS ARE SUITABLE TO ACHIEVE STATED OBJECTIVES**

A. QUALITY DEFINED

8. QUALITY AUDITS SHOULD BE CONDUCTED BECAUSE:

- **SUBORDINATES TEND TO TELL YOU WHAT YOU WANT TO HEAR**
- **SOUND MANAGEMENT DECISIONS CAN ONLY BE MADE IF BASED ON FACTS**
- **THUS: QUALITY AUDITS IN SUPPORT OF TOTAL QUALITY MANAGEMENT ARE IMPERATIVE**

A. QUALITY DEFINED

9. TOTAL QUALITY MANAGEMENT (TQM) IS A MANAGEMENT PROCESS THAT INVOLVES ALL THE STAKEHOLDERS AND ALL THE ELEMENTS OF A PROGRAMME WITH A ZERO DEFECTS OBJECTIVE

B. TQM: POINTERS

- 1. THE MANAGEMENT OF QUALITY IS CRUCIAL TO THE SUCCESS OF A PROGRAMME AND MERITS THE PERSONAL ATTENTION AND COMMITMENT OF TOP MANAGEMENT**

B. TQM: POINTERS

- 2. THE PRIMARY RESPONSIBILITY FOR QUALITY MUST LIE WITH THOSE DOING THE WORK. CONTROL BY INSPECTION IS OF LIMITED VALUE**

B. TQM: POINTERS

3. TO ENABLE STAKEHOLDERS TO ACCEPT RESPONSIBILITY FOR QUALITY, MANAGEMENT MUST:

- **ESTABLISH SYSTEMS FOR THE CONTROL AND VERIFICATION OF WORK/DEVELOPMENT, AND**
- **EDUCATE AND INDOCTRINATE THE PARTICIPANTS IN THEIR APPLICATION**

B. TQM: POINTERS

- 4. THE COSTS OF EDUCATION AND TRAINING FOR QUALITY, AND ANY OTHER COSTS WHICH MIGHT BE INCURRED, WILL BE REPAID MANY TIMES OVER BY GREATER OUTPUT, RESULTING IN LESS WASTE, A BETTER QUALITY PRODUCT AND HIGHER PROFITS.**

B. TQM: POINTERS

- 5. EDUCATION AND TRAINING ARE EXPENSIVE.**
- 6. IGNORANCE IS UNAFFORDABLE**

C. TQM: STRUCTURE AND ACTION

1. SET EXACT STANDARDS

- **WHAT PROFICIENCIES SHOULD THE BENEFICIARIES DEVELOP EACH PHASE OF THE PROGRAMME**

C. TQM: STRUCTURE AND ACTION

2. MEASURE RESULTS

- **CREATE THE MEASUREMENT TOOLS REQUIRED TO TRACK DEVELOPMENT**

C. TQM: STRUCTURE AND ACTION

3. IDENTIFY DEVIATIONS

- **MEASURE DEVELOPMENT AND INTERPRET THE RESULT: IDENTIFY DEVIATION FROM STANDARDS**

C. TQM: STRUCTURE AND ACTION

4. CORRECTIVE ACTION

- **ESTABLISH CORRECTIVE ACTION AND IMPLEMENT**

C. TQM: STRUCTURE AND ACTION

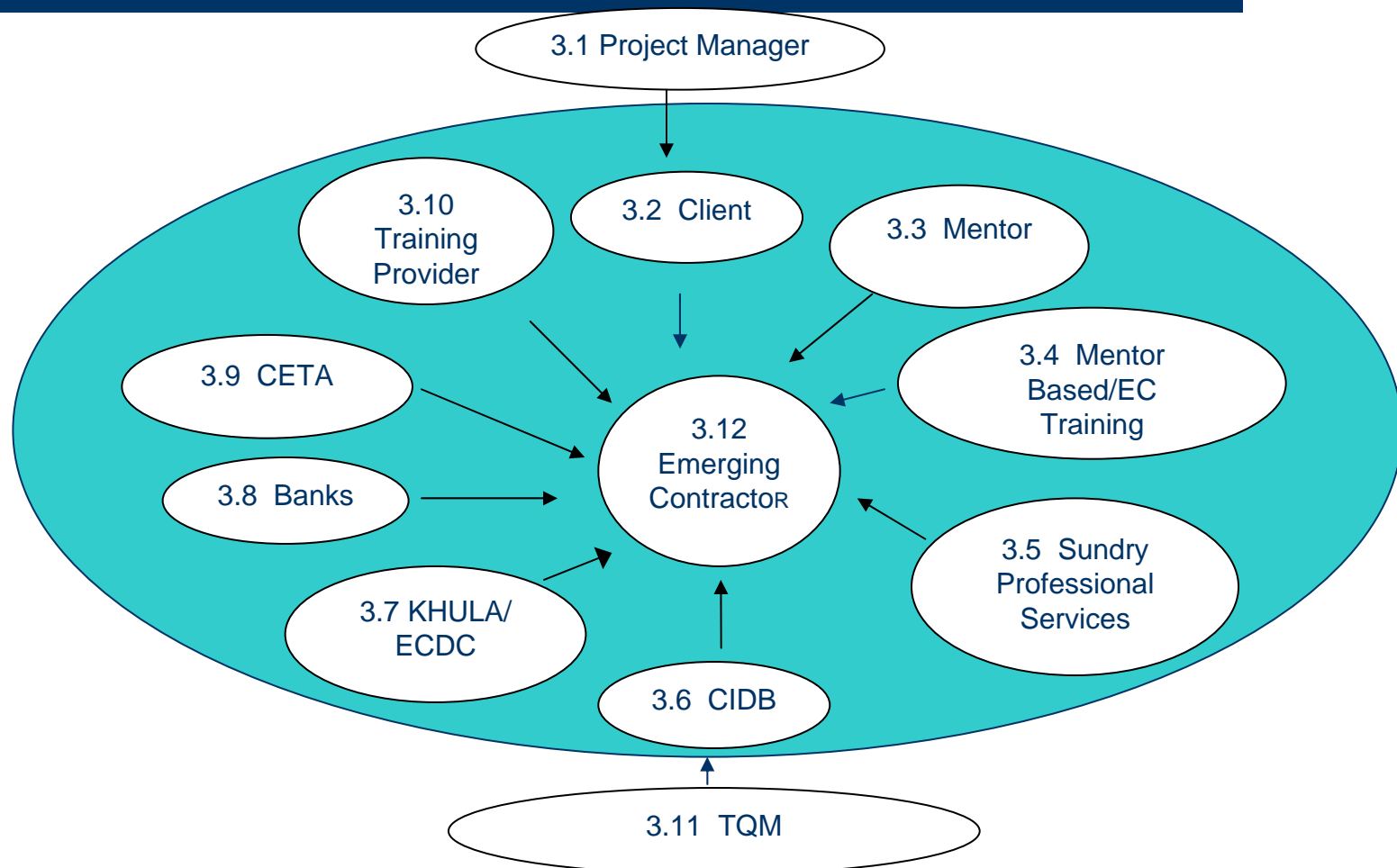
5. FOCUS

- **THE FOCUS SHOULD BE ON EACH HUMAN BEING AS BENEFICIARY AND NOT ON A FUZZY ORGANISATIONAL TARGET**

D. PRACTICAL APPLICATION

- 1. DETERMINE ALL THE ROLE PLAYERS AND CREATE A DEVELOPMENT TEAM: AN INTEGRATED EMERGING (SMALL) CONTRACTOR DEVELOPMENT MODEL**

INTEGRATED EMERGING (SMALL) CONTRACTOR DEVELOPMENT MODEL



D. PRACTICAL APPLICATION

2. IDENTIFY PROJECT MANAGEMENT AS THE DESIRED MANAGEMENT METHODOLOGY

(A CAKE DOES NOT BAKE ITSELF BY THROWING INGREDIENTS INTO A MIXER)

IDENTIFY PROJECTS TO BE PROJECT MANAGED; IN PROGRAMMES; IN PORTFOLIOS; ON A REGIONAL BASIS

D. PRACTICAL APPLICATION

- 3. BEST EFFORTS WILL NOT BECOME BEST PRACTICE THROUGH PROJECT MANAGEMENT WITHOUT QUANTIFIED AND QUALIFIED TQM**

D. PRACTICAL APPLICATION

4. NO HIGHLY RESPECTED EDUCATION OR TRAINING PROGRAMMES ARE KNOWN THAT DO NOT APPLY TQM (BY WHAT EVER NAME)

SMALL CONTRACTORS WHO RECEIVED CETA ACCREDITED TRAINING AND HOLD CERTIFICATES OF QUALIFICATION ARE COMMONLY NOT ABLE TO TENDER, KEEP ACCOUNTS, INTERPRET CONTRACT DOCUMENTS, ETC.

D. PRACTICAL APPLICATION

- 5. TQM IS PROBABLY THE SINGLE MOST IMPORTANT MANAGEMENT TOOL THAT GUARANTEES SUCCESS, OR IF NEGLECTED, MEDIOCRITY IS THE RESULT AT BEST**

D. PRACTICAL APPLICATION

- 6. THE QUALITY OUTCOMES OF A DEVELOPMENT PROGRAMME ARE THE BEST OVERALL INDICATORS OF SUCCESS OR FAILURE**

E. TQM DIAGRAMMATIC EXAMPLES

1. SET STANDARDS
AND MEASURE

MENTOR'S MONTHLY PROGRESS EVALUATION OF EMERGING CONTRACTOR

NAME OF EC: _____

NAME OF MENTOR: _____

REGION: _____

DESCRIPTION OF PROJECTS: _____

DATE OF EVALUATION: _____

PROGRESS EVALUATION: NQF LEVEL 2

The progress evaluation is based on a 10-point scale for which minimum standards to be achieved are determined by the Mentor and Emerging Construction Contractor Programme: Setting of Minimum Standards for Quality Assurance of Integrated ECDP. Progress evaluation is also required regarding a number of items not contained in the above programme, i.e. technical advancement (See item 4)

The 10-point tick box scale to be utilized as follows (benchmarks only provided, use entire scale for evaluation).

- | | | |
|----|---|---|
| 1 | = | The EC is not capable at all to execute this activity independently |
| 5 | = | EC is capable to execute this function with assistance |
| 10 | = | EC is capable to execute this function independently on a sustainable basis |

ASPECTS TO BE EVALUATED: DEVELOPMENT OF BUSINESS PROCESSES

SECTION 1: RUNNING A SMALL BUSINESS

A. ADMINISTRATION:

1. The Business plan: Development achieved

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Comments: _____

2. Meeting the legal requirements: Conformation, business registration

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Comments: _____

3. Running an efficient office: Level achieved

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Comments: _____

E. TQM DIAGRAMMATIC EXAMPLES

2. INTERPRET THE RESULTS

ESTIMATING AND TENDERING

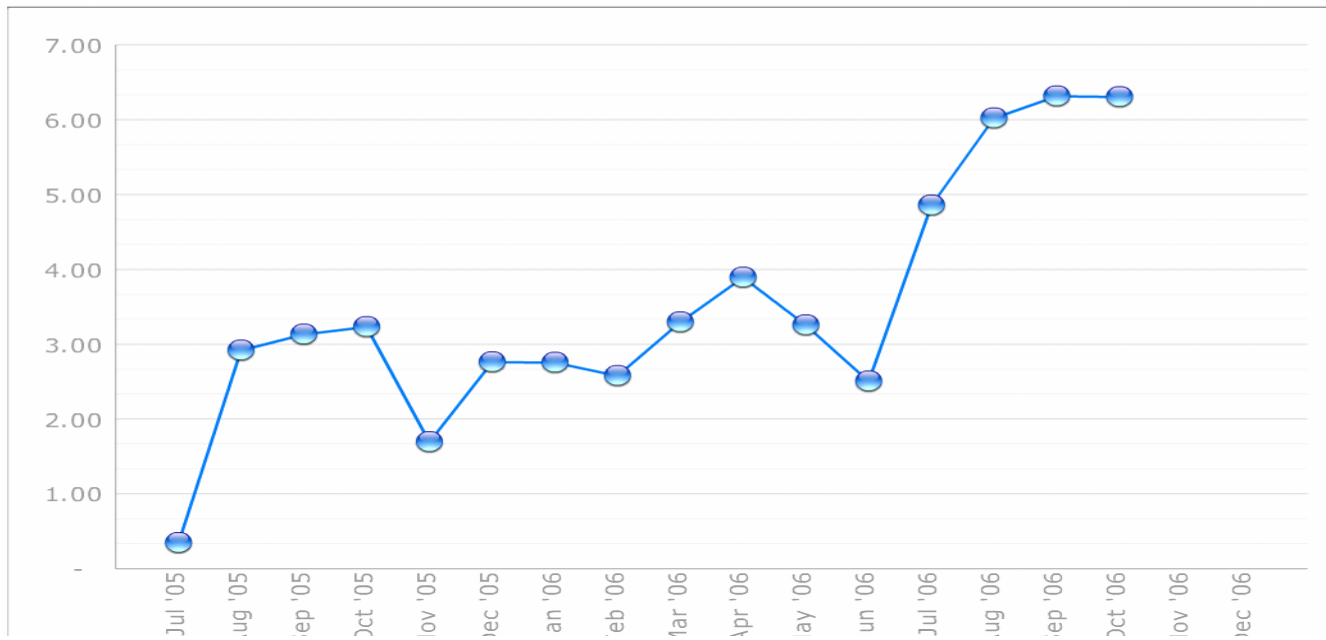
ECDC summary statistics for the period ended Oct '06

With Geography

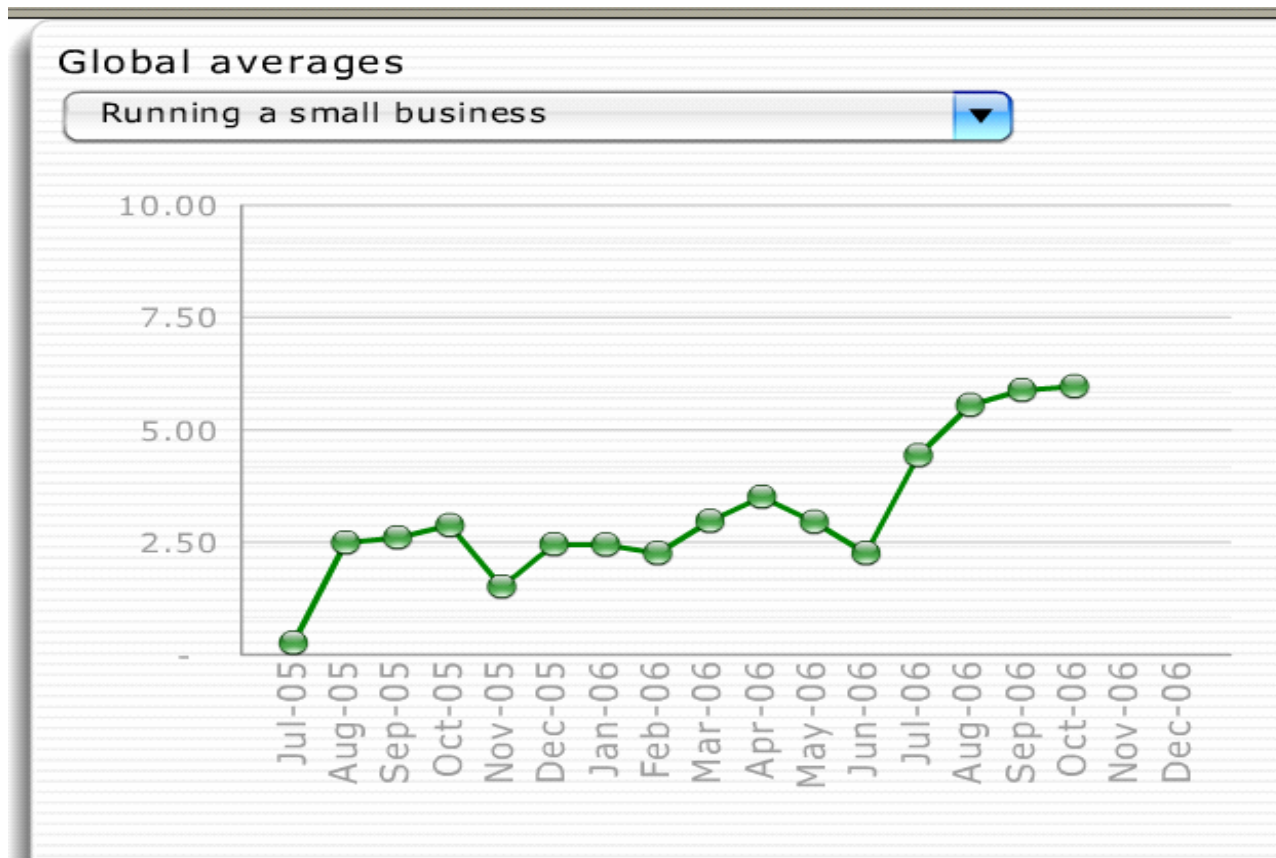
Without Geography

Running a small business

Administration



E. TQM DIAGRAMMATIC EXAMPLES



E. TQM DIAGRAMMATIC EXAMPLES

3. TAKE
CORRECTIVE
MANAGEMENT
ACTION

F. FOLLOW-UP SURVEYS

F/1 PROGRAMME COMPLETION SURVEY

Section 1 requested the respondents to rate the overall performance of the model.

The scoring system utilized was based on a 1-10 rating with:

1-2 = poor, 3-4 = fair, 5-6 = average/good,
7-8 = very good, 9-10 = excellent

QUESTION 1.1:

RATE THE OVERALL IECDM PROGRAMME
IN TERMS OF DELIVERING ON THE KEY
OBJECTIVE BEING ENTERPRISE
DEVELOPMENT OF EMERGING
CONTRACTORS.

The average score was 8, thus falling into the
range of “very good”

QUESTION 1.2:

RATE THE MENTORING PROGRAMME INTRODUCED BY THE PROJECT TEAM IN TERMS OF VALUE ADDING BENEFICIATION OF THE EMERGING CONTRACTOR.

The average score was 9.3, thus falling into the range of “excellent”

QUESTION 1.3:

RATE THE MANAGEMENT OF IECDM BY
THE ECDC APPOINTED PROJECT TEAM

The average score was 8.33, thus falling into
the range of “excellent”

QUESTION 1.4:

HAVE YOU AS THE EMERGING CONTRACTOR NOTICED SIGNIFICANT GROWTH OF YOUR ENTERPRISE REGARDING SUSTAINABILITY AND VIABILITY AS A CONSTRUCTION ENTERPRISE.

The average score was 8, thus falling into the range of “very good”

QUESTION 1.5:

RATE THE CETA LEARNERSHIP IN TERMS OF THE VALUE ADDING BENEFICIATION IT HAS PROVIDED FOR THE EMERGING CONTRACTOR

The average score was 8.33, thus falling into the range of “excellent”. The emerging contractors have indicated a high level of satisfaction with the learnership qualification.

This in contradiction of the 6.33 scored for the same element by the mentors. Based on the scores received and the comments, it can be said that although the emerging contractors felt they gained from the learnership the mentors questioned the lack of practical application on site of the modules taught on the learnership.

QUESTION 1.6:

RATE THE OVERALL TQM PROCESS IN TERMS OF THE VALUE ADDING, PROVIDING CORRECTIVE MEASURES AND TO GUIDE THE MENTOR/EMERGING CONTRACTOR/TRAINER PROVIDER RELATIONSHIP.

The average score was 8.67, thus falling into the range of “excellent”

QUESTION 1.7:

HAS THE INTRODUCTION OF THE MANUAL GUIDELINE DOCUMENT (MSCC) CREATED A SOUND KNOWLEDGE BASE FOR THE MENTOR/CONTRACTOR RELATIONSHIP.

The average score was 9, thus falling into the range of “excellent”

F. FOLLOW-UP SURVEYS

F/1 PROGRAMME COMPLETION SURVEY

Section 2 took account the business development of the emerging contractors, the response was requested as a yes or no to the question put forward.

YES OR NO

QUESTION 2.1:

ASKED WHETHER THE IECDM HAD IMPROVED THE BUSINESS SKILLS OF THE EMERGING CONTRACTOR TO MANAGE THEIR ENTERPRISES EFFECTIVELY.

100% responded with “yes”. 0% responded with “no”

QUESTION 2.2:

ASKED WHETHER THE EMERGING CONTRACTOR WAS NOW IN A POSITION TO EXECUTE PROJECTS OF LARGER CAPACITY AS A RESULT OF THE KNOWLEDGE GAINED THROUGH THE IECDM.

100% responded with “yes”. 0% responded with “no”

QUESTION 2.3:

ASKED WHETHER THE EMERGING CONTRACTOR WAS ABLE TO TENDER AND COMPETE MORE EFFICIENTLY FOR CONSTRUCTION PROJECTS POST IECDM THAN PRIOR TO THE IECDM.

100% responded with “yes”. 0% responded with “no”.

QUESTION 2.4:

ASKED WHETHER THE EMERGING CONTRACTOR FELT THE KNOWLEDGE BASE REGARDING THE CONSTRUCTION INDUSTRY HAS BEEN ENHANCED AS A RESULT OF THEIR PARTICIPATION IN THE IECDM.

100% responded with “yes”. 0% responded with “no”

F. FOLLOW-UP SURVEYS

F/2 12 MONTH POST PROGRAMME FOLLOW-UP SURVEY

PART 1: EMERGING CONTRACTOR PERSONAL DEVELOPMENT

	QUESTION	PERCENTAGE			
		NO	SLIGHTLY	MODERATELY	CONSIDERABLY
1.1	How much value would the extension of the mentoring process have added to the success of your business if it was continued for another year?	-	12.50	12.50	75
	COMMENTS: _____ _____ _____ _____				
1.2	Have you developed the ability to tender on your own?	-	12.50	37.50	50
	COMMENTS: _____ _____ _____ _____				
1.3	Have you developed the ability to do your own accounts?	-	-	62.50	37.50
	COMMENTS: _____ _____ _____ _____				

PART 1: EMERGING CONTRACTOR PERSONAL DEVELOPMENT

	QUESTION	PERCENTAGE			
		NO	SLIGHTLY	MODERATELY	CONSIDERABLY
1.4	Have you developed the ability to do cost analysis?	-	25	62.50	12.50
	COMMENTS: _____ _____ _____				
1.5	Has your ability to buy materials at competitive rates improved?	12.50	-	12.50	75
	COMMENTS: _____ _____ _____				
1.6	Has your ability to source labour improved?	12.50	25	12.50	50
	COMMENTS: _____ _____ _____				

PART 1: EMERGING CONTRACTOR PERSONAL DEVELOPMENT

	QUESTION	PERCENTAGE			
		NO	SLIGHTLY	MODERATELY	CONSIDERABLY
1.7	Has your site management skills improved?	-	-	12.50	87.50
	COMMENTS: _____ _____				
1.8	Has the turnover of your business increased?	12.50	12.50	62.50	12.50
	COMMENTS: _____ _____				
1.9	Has the profitability of your business improved?	25	12.50	37.50	25
	COMMENTS: _____ _____				
1.10	Are you making progress towards the next CIDB level?	12.50	25	37.50	25
	COMMENTS: _____ _____				

PART 2: INTEGRATED EMERGING CONTRACTOR DEVELOPMENT MODEL

Objective of Questionnaire

As a stakeholder participating in the IECDM we require your opinion and assessment of the various aspects of the model with the intention of identifying strengths and weaknesses of the model in order to further enhance the IECDM for future implementation.

SECTION 1. THE IECDM PERFORMANCE (1-10 Scoring system) Method of Scoring

The scoring system follows a tick box covering a range of 1-10.

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----

Rating:

1 to 2
2 to 4
4 to 6
6 to 8
8 to 10

PART 2: INTEGRATED EMERGING CONTRACTOR DEVELOPMENT MODEL

QUESTION		PERCENTAGE				
		1-2	3-4	5-6	7-8	9-10
2.1.1	Rate the overall IECDM programme in terms of delivering on the key objectives being enterprise development of emerging contractors	-	-	37.50	50	12.50
2.1.2	Rate the mentoring programme introduced by the project team in terms of the value adding benefications of the emerging contractors	-	12.50	25	37.50	25
2.1.3	Rate the management of the IECDM by the ECDC appointed Project Team	-	-	37.50	37.50	25

PART 2: INTEGRATED EMERGING CONTRACTOR DEVELOPMENT MODEL

QUESTION		PERCENTAGE				
		1-2	3-4	5-6	7-8	9-10
2.1.4	Have you as the Emerging Contractors noticed significant growth of your enterprise regarding sustainability and viability as a construction enterprise. Score yourself in terms of the category you feel you fall into	-	12.50	25	37.50	25
2.1.5	Rate the CETA learnership in terms of the value adding beneficiations it has provided for the Emerging Contractor	-	-	37.50	50	12.50
2.1.6	Rate the TQM process introduced in terms of the value adding to introduce corrective and to guide the mentor/contractor/service provider relationship	-	-	25	62.50	12.50
2.1.7	Has the introduction of the Manual: Mentor Guideline Document created a sound knowledge base for the mentor/contractor relationship	-	-	25	62.50	12.50

SECTION 2: BUSINESS DEVELOPMENT OF THE EMERGING CONTRACTOR (YES/NO rating system)

Method of scoring

Yes	
No	

QUESTION		PERCENTAGE	
		YES	NO
2.2.1	Has the IECDM improved your business skills to manage your enterprise effectively	100	
2.2.2	Are you able to execute projects of a larger capacity as a result of your participation in the IECDM	100	
2.2.1	Are you able to tender and compete more efficiently for construction projects post IECDM than prior to the IECDM	100	
2.2.1	Has your knowledge base regarding the construction industry been enhanced through your participation in the IECDM	100	

G . CONCLUSION

**IF YOU DO NOT HAVE EXACT STANDARDS,
CANNOT MEASURE, QUANTIFY AND QUALIFY
THE OVERALL RESULTS, PER BENEFICIARY OF
A PROGRAMME.....**

**HOW CAN YOU MANAGE IT IF YOU DO NOT
KNOW WHAT YOU ARE ACHIEVING, OR WORSE,
NOT ACHIEVING???**

**FANCY REPORTS WITHOUT MANAGEMENT
ACTION ARE MORE OR LESS USELESS**