

MENTORING: A KEY INTERVENTION IN SMALL CONSTRUCTION CONTRACTOR CAPACITY BUILDING IN SOUTH AFRICA

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During the past decade the newly democratized South Africa has achieved consistent economic growth, presently stabilized at approximately 5% per annum. This favourable economic environment is continuously stimulating development, but a lack of capacity is reflected in general skills shortages and support structures for entrepreneurial development. These problems are acutely evident in the construction industry. Government interventions, in the form of legislation, to create an enabling environment for small contractors who were disadvantaged under the pre-democratic period (pre-1994) to enter and/or progress in the construction industry (as contractors from a very low basis, commonly referred to as emerging contractors, to self-sustainable construction contractors) were made. Many attempts by different agencies to develop emerging contractors were unsuccessful, or at best produced mediocre results. It was imperative that a model had to be developed that would satisfy the objective to produce self-sustainable construction contractors. The problem researched consists of three sub-problems, being firstly to identify supportive legislation interventions, secondly to identify all possible role players that could be sourced to support the holistic/integrated development of contractors and thirdly to structure and introduce a holistic programme of which the outcomes could be measured. The nature of the problem indicated that overall project management was the management model to be followed. The Integrated Emerging Contractor Development Model was then developed and introduced for the first time in totality for the Eastern Cape Development Corporation, in conjunction with the authors, covering an entire province in South Africa. A cornerstone of this model turned out to be the role played by mentors, exceeding the normal definition of mentoring, becoming business advisory support. The constant measuring of outcomes generated quantified and qualified data throughout the 24-month programme period, which were utilized to take effective corrective measures when required. It has been concluded that the development of emerging contractors, strongly supported by mentors, is imperative to achieve success. The conclusions and recommendations resulting from this programme have received favourable comments over a wide front and it is presently under consideration as input into a national best practice intervention.

Keywords: emerging construction contractors, emerging (small) contractor development, mentoring, project management, training.

INTRODUCTION

Numerous attempts by a variety of agencies were undertaken in South Africa to develop small (emerging) construction contractors (ECs) who were disadvantaged in the pre-democratic era in South Africa before 1994. Accelerated development of ECs generally showed little success, mainly due to the fragmented nature of such attempts. An Integrated Emerging Contractor Development Model (IECDM) was created, in conjunction with the authors, to address the problems experienced in developing self-

sustainable construction contractors for the construction industry. The industry suffers from a lack of capacity, whilst previously disadvantaged persons are in need of support to improve their entrepreneurial development, managerial and technical skills, in order to become self-reliant. This model was developed for the Eastern Cape Development Corporation (ECDC) and introduced throughout the Eastern Cape Province, South Africa, as the first holistic approach.

The problem to create an IECDM consisted of three sub-problems, being firstly to identify supportive legislation, secondly to identify all the possible role players that could be sourced in support of the holistic IECDM and thirdly to structure the programme, that was introduced, in such a way that the outcomes could be measured and the results acted upon.

The methodology applied entailed that all possible role players/agencies that could contribute to the development/empowerment of ECs were identified and their probable contributions assessed. Cognisance was taken of all legislative and other initiatives taken by government in order to create an enabling environment for ECs. The fact that these government directives are generally accepted as roadmaps for the upliftment of people in South Africa made the introduction of the IECDM acceptable to the identified role players and other stakeholders. The measurement tool devised for the programme was based on the identification of all the knowledge areas and application thereof to be mastered by the ECs. These knowledge areas (45) were placed on an assessment schedule, with provision for non-quantified information to be provided. Each of the 45 knowledge areas were assessed monthly, according to a 10-point scale, for each contractor, by his mentor. Areas of weakness were identified for each contractor and acted upon as described later. The data collected for all contractors was statistically processed and presented diagrammatically for each EC, each region and for the province as a whole.

The contributions of each role player/stakeholder in the IECDM are described, following Figure 1, which presents the complete model.

Figure 2 presents a diagrammatic (overall) example of the quantified data, success and results that were continually produced by mentors. The conclusions drawn and recommendations are based on the programme as a whole and therefore spread wider than the confined information contained in this paper.

STRUCTURAL INTERVENTIONS

Government, and other organs of state have made the following structural interventions, in order to create an “enabling environment” for the rapid development of, inter alia, construction contractors (summarized by Hauptfleisch, 2006:2-3). These interventions were assimilated where possible in the development of the IECDM:

Creating an enabling environment: Construction Industry Development Board (CIDB)

The South African Government has adopted legislation to create an enabling environment, from which inter alia flowed the Construction Industry Development Board Act (Act 38 of 2000). The CIDB mandate that followed from the above legislation is encapsulated in the following abstract in the Construction Industry Development Board: Annual Report (2004/2005:12):

- Provide strategic direction and develop effective partnerships for growth, reform and improvement of the construction sector;

- Promote sustainable growth of the construction industry and the sustainable participation of the emerging sector.

Broad Based Black Economic Empowerment

Government initiatives are further supported by the Broad Based Black Economic Empowerment Act (No 53 of 2003) (BBBEE, 2003:2) that is in the implementation phase, and reads as follows: “To establish a legislative framework for the promotion of black economic empowerment; to empower the Minister to issue codes of good practice and to publish transformation charters; to establish the Black Economic Empowerment Advisory Council; and to provide for matters connected therewith.”

Construction Education and Training Authority

The Skills Development Act (Act 97 of 1998) provides for the creation of a Sectoral Education and Training Authority (SETA) for each of the various economic sectors. The Construction Education and Training Authority (CETA) is responsible for the construction industry. A levy, expressed as a % of salaries and wages paid by employers, is placed in a fund that is applied in terms of stated guidelines, to ensure that education and training take place in the industry.

STRUCTURING OF AN INTEGRATED EMERGING CONTRACTOR DEVELOPMENT MODEL

The enabling environment that has been created, as overviewed above, leaves the construction fraternity with the challenge to create a working model to achieve the stated objectives within the unique demographics of South Africa. The IECDM is a serious attempt to put such a working model to the test (Hauptfleisch, 2006:4-8). The results obtained from the first practical introduction of the IECDM are reported in this paper.

Figure 1 is a diagrammatic presentation of the (IECDM), depicting the entire identified role players required in order to maximize the development of emerging contractors.

SELECTION OF EMERGING CONTRACTORS, MENTORS AND TRAINING SERVICE PROVIDERS

Emerging Contractors (ECs)

Emerging Contractors for the programme were selected from applicants who responded to a comprehensive advertising campaign in the Eastern Cape. A good response was obtained and the assessment to identify the most suitable candidates was conducted by the Council for Scientific and Industrial Research (CSIR) in terms of the South African Construction Excellence Model (SACEM) guidelines. Approximately 60 candidates were advised of their selection, some of whom did not take up the offer. Further selection was executed and a final group of 54 were selected. The programme was then structured and launched from five centres, namely East London, Port Elizabeth, Queenstown, Mthatha and Kokstad. It is important to note that the programme is based on the selection of a person and the focus is on individual persons to be empowered (not a general business development approach).

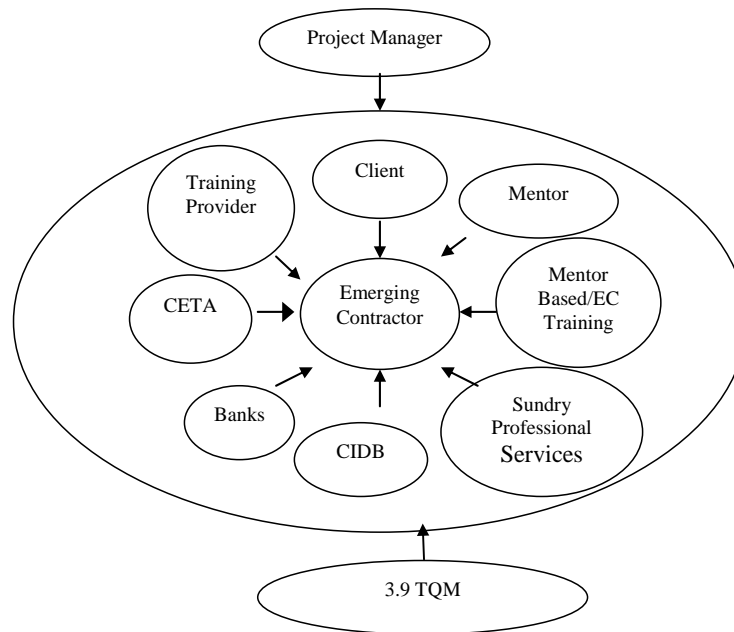


Figure 1: Integrated Emerging Contractor Development Model
Source: Hauptfleisch, 2006:5

Mentors

Mentors for the programme were selected by inviting applications via a province wide advertising campaign. All those who aspired to become mentors on the programme were subjected to the established Mentorship Accreditation Programme of the University of the Free State. If they achieved a certificate of accreditation, and were found suitable during a professional interview, they were appointed as mentors. This accreditation programme is structured to assess if the prospective mentor possesses the necessary knowledge and has a suitable aptitude to practice as a mentor.

Training Service Providers

Three training service providers were selected from the CETA database in conjunction with CETA. Two of these were a source of continuous concern and turned out to be the weakest link in the programme, requiring constant management interventions to rectify. The third provider was excellent and maintained a very high standard. All the training providers however failed to create some key competencies with the contractors. The most pertinent was, firstly, to ensure that all the contractors are able to tender and execute cost control during the construction phase of a project and secondly, the contractors did not achieve an acceptable level of financial management ability. The mentors were required to intervene in this regard, the result of which is further described in conjunction with Figure 2.

TOTAL QUALITY MANAGEMENT (TQM): METHODOLOGY AND APPLICATION OF OUTCOMES

Indabas (meetings) and TQM Visits

In order to ensure that the required results were achieved a system of constant contact was put in place. TQM being an important element of the IECDM, dictated that the entire development process of the contractors had to be managed constantly. Two activities were introduced to achieve this. Firstly, Indabas (meetings) were held in

every centre, every three months, where all stakeholders were required to be present. The main objectives were to build teams that focussed on results, to provide regular feedback on how the programme was faring, to share information on experiential learning by all and to provide guidance in a unified fashion. Secondly, during the period between Indabas the TQM team visited every mentor, with the contractors assigned to each mentor present, in the offices of the mentor or on a construction project of the contractor, in order to monitor the progress of each contractor, to evaluate the interaction between mentor and contractors, to ensure that actual capacity building was taking place, to agree on corrective measures where deviations from stated objectives occurred and to generally monitor and manage the programme towards achieving the standards set.

Manual for Small Construction Contractors

CETA sets standards for the training provided by CETA accredited training providers. Each training provider has to create their own training material, which is not readily available to all stakeholders. Clearly defined training standards and training material being used, should be available in a transparent, accessible and generic format in order to be readily available during the process of setting standards and to ensure the TQM work required. The management team obtained permission from the Building Industries Federation South Africa (1990's), now Master Builders South Africa (MBSA), to adapt their Manual for Smaller Builders to fit the purpose, for the IECDM, Manual for Small Construction Contractors (MSCC).

Quantified Data: Mentors' Evaluation of Emerging Contractors and Others

The MSCC was positioned to be a reference standard for the level of competency achieved by the contractors. The indexing of the manual was further used as reference for the monthly assessment made by mentors of each contractor's development level. Each knowledge area contained in the index as well as some others were taken up into a ten-point assessment scale which was then assessed on a monthly basis by every mentor for every emerging contractor. This provided the management team with a wealth of sensors (45) relating to every aspect of each contractor's individual development. An effective progress measurement tool was thus created. The results obtained were translated into statistical data for each contractor, combined for every region and for the IECDM as a whole. The statistical data was processed further through a computer programme, specifically designed by the CSIR for the IECDM, and presented in easily understandable diagrammatic presentations (see Figure 2). These presentations were extensively used throughout the programme as communication tools and to identify strong points and weaknesses in the programme.

Quantified Data: Emerging Contractors' Evaluation of Mentors and Others

The emerging contractors were also afforded the opportunity to evaluate the mentors and other role players on the programme. Their feedback, reflecting the actual experience of the beneficiaries of the programme, was very valuable as TQM input and provided very specific insights that were also used to assist with the management of the programme. It created an orderly platform for the contractors to put forward experiences and outcomes. The outcomes were presented in a similar diagrammatic format as shown in Figure 2.

Management Development Programme

After approximately twelve months it became evident from the data obtained from the mentors that the formal training component presented by the training service providers was not going to be sufficient to create self-sustainable contractors.

Although the mentors' primary task was to assist contractors with their businesses, and business development in general, it became imperative that their terms of reference had to be expanded and that they would have to become involved in assisting to resolve knowledge gaps experienced by the contractors. Of prime concern was that very few of the contractors could actually work out and present a tender. They were also unable to follow through with the necessary cost control and financial management.

Having clearly established these shortcomings, the management team introduced a further development tool that was named the Management Development Programme (MDP). The MDP was structured in the format of a simple bar chart for the remainder of the IECDM programme. The underlying principle was to place each item contained in the MSCC on the bar chart, where after each contractor's proficiency was evaluated by the mentor regarding each specific knowledge area in the MSCC. The mentors were then required to intervene and specifically oversee capacity creation in areas of weakness. This intervention is visually very evident from Figure 2, showing the specific impact of the MDP from June 2006 onwards.

Descriptive Qualitative Surveys and Application

The following were the most pertinent in this regard:

- Mentors were afforded the opportunity to provide written comment on each quantified item (ten point scale) of the evaluations that they made monthly regarding each contractor.
- Similarly contractors were afforded the same opportunity in the evaluations that they made each month to provide written comment.
- The TQM consultants also provided written reports after every series of TQM visits. Their reports did not contain a quantified component as it was regarded superfluous. It was structured in the fashion of minutes of meetings, but very pertinently containing guidelines for management team action to be taken.

CONSTRUCTION EDUCATION AND TRAINING AUTHORITY (CETA)

The Role of CETA

As the statutory body responsible for training in the construction industry, it was obvious that CETA participation should be sought in the IECDM. It was agreed with CETA that the contractors on the IECDM would be accepted for training in order to earn a qualification, deviating from the normal tripartite agreement involving the contractor, a training provider and an employer. In this instance the ECDC was accepted as fulfilling the role of the employer, supported by the mentorship intervention. The Learnership that was selected for the IECDM is the NQF Level 2, Construction Contractor Learnership. The IECDM was consequently structured to factor in all the CETA requirements, including CETA quality assurance and assessment procedures. Having accepted this structure as definitive, the project team regarded the training component as given and self-regulating. A matter of concern,

however, was the initial limited managerial control that the management team had over the training service providers and the latter failure of EC's in achieving knowledge transferred in some areas.

Training Methodology

The training methodology followed consisted of a dual system, having a classroom training component and structured workplace experience, the latter supported by mentors. The classroom training was scheduled to take place over a 24-month period with two full days of training every week. This placed considerable strain on the contractors, who in conjunction with this training, still had to attend to their daily business activities. Contractors (typically age group 30-40 years with families) simply cannot afford to enter a programme such as this full time, therefore "learn-and-earn" is the only viable option.

QUANTITATIVE DATA: CSIR DIAGRAMMATIC PRESENTATION AND COMMENTS

All the quantitative data generated during the programme (as discussed above) was submitted to the CSIR for processing. This element of the TQM process is unique and the first of its kind applied in order to continuously track, assess and manage programme outcomes when embarking on the accelerated development of beneficiaries in a learn-and-earn environment.

The most important outcome of the CSIR Report is that it conclusively shows that it is possible to set standards for all aspects of a development programme, measure the outcomes, assess deviations and take corrective steps based on the measured outcomes, during the life of the programme. One example of a diagrammatic presentation is shown below in Figure 2, providing a perspective of the overall ability developed by the contractors during the programme (CSIR Final Close-Out Report, 2007:1-22). This example is typical of each of the 45 assessments that were made each month, providing the overall average of all 45 assessments, reflecting the ability of the EC's to run a small construction business (noted in Figure 2 as "global averages"). Table 1 provides the scoring and ranking scales determined in order to reflect the contractors' ability to manage a small construction business, termed "Running a Small Business-Global Averages."

Following the official completion of the programme, further studies dealing with aspects not contained in the CSIR Report were undertaken at the end of November 2006, in order to obtain a final perspective from the participants,. This survey (Close-out Stakeholder Questionnaires) lead to two further reports, firstly reflecting the views of mentors and training providers and secondly the views of the ECs. These reports generally commented favourably on the IECDM.

From a purely methodology perspective, the data contained in these reports represents the *perspectives* of mentors and contractors. The data was not tri-angulated. However, the feedback from mentors and contractors, over a large geographical area, without personal contact with each other, consistently confirmed the same trends, supporting the reliability of the data.

Figure 2: Running a Small Business – Global Averages

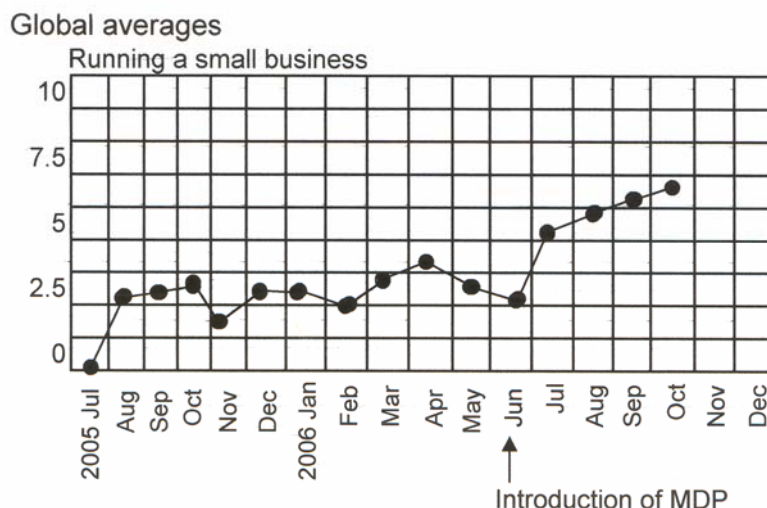


Figure 2: Running a Small Business – Global Averages

Table 1: Scoring and Ranking

Score	Performance
0-20%	Poor performance (contractor is not capable of executing an activity independently)
21-40%	Fair performance
41-60%	Average/good performance (contractor is capable of executing an activity with assistance)
61%-80%	Very good performance
81-100%	Excellent performance (contractor is capable of executing activities independently and in a sustainable manner)

Running a Small Business - Global Averages

When viewed across the overall performance for the time under review (see Figure 2), October 2006 represents the highest rating at 59.7% (average, approaching very good performance). When compared to the 24.9% recorded in August 2005, through to June 2006 (being “fair”), the performance regarding this indicator has increased by almost 35 percentage points since the inception of the programme, mainly during the period June 2006 to October 2006. This represents a substantial increase in the ability of contractors to run a small construction business. The June 2006 rating represented a “fair” performance, which has increased through the intervention to an “average to good” performance level in October 2006. This fairly dramatic improvement specifically co-incided with the introduction of the Management Development Programme (MDP), requesting mentors to identify knowledge weaknesses and to take steps to rectify it, underscoring the mentors’ contribution in capacity generation. The data overall also seems to indicate a trend in terms of the ability of contractors to absorb knowledge. It would appear that performance increases in cycles of about three months (August-October 2005, February to April 2006). These periods are generally followed by two to three months of declined performance. The declines are generally followed by increased performance, which tends to pass previous levels of performance. Whilst the performance seems to stagnate or reduce for short time periods it does seem to increase to higher levels after about 3 months. This could be an indication of the time it takes contractors to absorb or internalize data and/or new learning.

CONCLUSIONS

Research conducted during the creation and practical implementation of the IECDM (as a holistic integrated programme in practice) and the ensuing results, conclusively showed that the elements contained in the model are vital to achieve successful outcomes resulting from the creation of an enabling environment for emerging (small) contractor development in South Africa.

The programme has to be rigorously managed. This requires that a competent project manager and management team be appointed to manage the programme on a day-to-day basis.

All elements of the programme have to be quality assured and managed each step of the way so that corrective action may be taken in time. This is done by way of the programme owner (client) receiving regular progress reports and management action plans, based primarily on quantitative data, supported by qualitative data.

An important principle underlying the IECDM is recognition that it is a training programme with the objective of creating sustainable construction businesses. Training has a price tag and satisfactory results are achieved more effectively and efficiently when programmes have the necessary financial resources and the full commitment of all stakeholders.

Selection criteria should be further developed and applied to identify and select suitable contractors to enter the programme, as well as training service providers. Minimum standards have to be set and adhered to.

Financial packages should be obtained for the ECs from financial institutions that are committed to the programme and the development of contractors. The nature of the programme offers security to a bank that it cannot normally obtain from an emerging contractor operating on his own.

The IECDM is mentor-based and the appointment of an accredited mentor (accreditation based on construction knowledge and aptitude) is central to the success of the programme. The University of the Free State has such an accreditation programme. The multitude of tasks fulfilled, the constant business development support and the actual training provided by mentors, are key interventions in small construction contractor capacity building in South Africa. Without it there is virtually no chance of success.

RECOMMENDATIONS

The IECDM requires that a local, regional or national body, with sufficient muscle, undertake the programme. Economy of scale is achieved by implementing the comprehensive programme across a region such as a province. Integrated programmes are remarkably cost effective when conducted on a fairly large scale. Organizations such as government departments (Departments of Public Works or Housing), metros, and development corporations are ideal promoters for the model. Contractors are developed successfully when they have continuous construction work. If possible, contractors on the programme should be provided with term contracts for a minimum period of 24 months. This time scale also synchronizes with CETA Learnership requirements.

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