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## **The relevance of ethical conduct in creating a competitive advantage for entry-level emerging contractors**

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### **Abstract**

Small emerging contracting companies could possibly be flooding the construction industry, putting strain on the construction economy to stay afloat, support and sustain these participants. It is important for any organisation that deals with other individuals and organisations to understand the correct ethical codes of conduct in a business environment. To minimise unethical behaviour in the industry, new contractors need to both understand and apply the principles of ethical conduct in their business environments.

This research is aimed at investigating whether ethical conduct among new entry-level emerging contractors can contribute to, and ensure their sustainable competitiveness in the South African construction industry. This research is also aimed at determining whether education and knowledge of entrepreneurship, business, project and construction management, in addition to building contracts, can contribute to new entry-level emerging contractors' ethical conduct and sustainable competitiveness.

The literature reviewed and the results of quantitative research among professional consultants in South Africa formed the basis of the study. Ethics is a sensitive topic within the construction industry; therefore, it is difficult to gather the data directly from contractors, as they are reluctant to participate for fear of revealing their identities and having this negatively influence their personal and business credentials.

Unbiased respondents, who were not directly linked to emerging contractors and who were not afraid to give their objective opinions, were questioned and included architects, quantity surveyors, consulting engineers, project managers, construction mentors, and construction managers. The study revealed that ethics is an important factor in any business environment and that the correct application thereof can partially contribute to the sustainable competitiveness of new entry-level emerging contractors. This, in turn, should promote the long-term survival of a business. Furthermore, the knowledge of good management practices and building contracts can contribute to a successfully run business.

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However, the average new entry-level emerging contractor has insufficient experience and knowledge of the management of construction projects and of building contracts.

The study should be valuable to construction-industry professionals, contractors and clients, as it provides them with research information on a problem area in the industry.

**Keywords:** Ethics, sustainable competitiveness, construction, project, and business management, building contracts

## Abstrak

Daar is tans baie nuwe intreevlak opkomende aannemers wat die konstruksienywerheid betree en moontlik druk plaas op ekonomiese vooruitgang om die volhoubaarheid van hierdie aannemers te verseker. Vir enige onderneming om eties op te tree teenoor ander persone en organisasies is dit noodsaaklik om etiese kodes te handhaaf. Om onetiese optredes te beperk, is dit daarom belangrik dat hierdie opkomende aannemers die belangrikheid van etiese kodes in die konstruksiebedryf verstaan en handhaaf.

Hierdie navorsing is daarop gemik om vas te stel of etiese optredes deur nuwe intreevlak opkomende aannemers in die Suid-Afrikaanse boubedryf tot hul onderhoubare mededingendheid kan bydra en verseker. Die navorsing is ook daarop gemik om vas te stel of kennis en ondervinding/ervaring in entrepreneurskap, besigheid, projek- en konstruksiebestuur, asook boukontrakte kan bydra tot nuwe intreevlak opkomende aannemers se etiese optredes en onderhoubare mededingendheid.

Die literatuur wat ondersoek is, asook die resultate van 'n kwantitatiewe navorsing gemik op professionele konsultante in die boubedryf in Suid-Afrika, het die basis van die navorsing gevorm. Etiek is 'n sensitiewe onderwerp in die boubedryf. Daar is gevind dat dit moeilik is om data direk van kontrakteurs af in te samel omdat hulle huiwerig is om deel te neem aan so 'n gesprek, hoofsaaklik omdat hulle huiwerig is dat hul persoonlike inligting geopenbaar sal word, en dat dit hul besighede en persoonlike kredietwaardigheid negatief sal beïnvloed.

Daarom is onbevooroordeelde respondente genader en onderhoude met hulle gehou omdat hulle geen direkte skakel met opkomende aannemers gehad het nie en omdat hulle bereid was om eerlike en objektiewe opinies te lewer. Hierdie onbevooroordeelde respondente het bestaan uit argitekte, bourekenaars, siviele ingenieurs, konstruksie-mentors, asook konstruksie- en projekbestuurders. Die studie het bewys dat etiek 'n belangrike faktor in enige besighedsomgewing is en dat die korrekte toepassing daarvan gedeeltelik kan bydra tot die onderhoubare mededingendheid van nuwe intreevlak opkomende aannemers, en gevolglik ook tot die langtermyn oorlewing van so 'n besigheid. Daar is ook bevind dat kennis van goeie en korrekte bestuursbeginsels, asook boukontrakte, kan bydra tot 'n suksesvolle bestuurde besigheid. Daar is egter ook bevind dat die gemiddelde nuwe intreevlak opkomende aannemer nie genoegsame kennis en ondervinding het van die bestuur van konstruksieprojekte, en van boukontrakte nie.

Die studie behoort van belang te wees vir professionele persone wat deel vorm van die konstruksiebedryf, asook vir aannemers en kliënte in die bedryf omdat dit inligting in verband met navorsing van 'n probleemarea in die industrie bied.

**Sleutelwoorde:** Etiek, onderhoubare mededingendheid, konstruksie-, projek- en besighedsbestuur, boukontrakte

## 1. Introduction

The construction industry's need to survive in its toughest business environment since 1994 has led to some very aggressive and, at times, unethical business practices highlighted by reports of non-competitive pricing; these are symptomatic of the industry's current plight (Rodberg, 2011: 4). The solution to unethical conduct in any sector of the South African economy may be that all leaders, whether they are business leaders, political leaders, or spiritual leaders, should be selected on the basis of their ethical balance, because a sustainable future depends on the ability of the industry to put in place with the highest ethical standards (Bhojaram, 2013: online).

New contractors who enter the construction industry with start-up businesses can be seen as entrepreneurs, and their business ventures would fall into the category of entrepreneurship. Start-up businesses are crucial to a country's economy, as they hold many advantages such as opportunities for employment and enrichment of the community through economic perseverance. In many instances concerning start-up businesses, the importance of ethics as part of the business structure is often neglected or misjudged (Bowie, Harris & Sapienza, 2009: 408).

As ethical conduct may play an important role in the survival of new entry-level emerging contractors and, in turn, influence their sustainable competitiveness within the construction industry, it is necessary to determine whether new entry-level emerging contractors are unethical in their business activities. Ethical conduct also plays an important role in the moral correctness of a new contracting business. To be able to run an organisation that deals with individuals, organisations and morally sensitive issues in an ethical manner, it is necessary that new entry-level emerging contractors understand the importance of correct ethical conduct in a business environment. Small emerging contracting companies could possibly be flooding the construction industry, putting strain on the construction economy to stay afloat, support and sustain these participants. To minimise unethical behaviour in the industry, new contractors need to both understand and apply the principles of ethical conduct in their business environments and in their dealings with other individuals and organisations with whom they will come into contact when they are actively partaking in construction projects or activities within the industry.

This article reports on a research project in order to determine whether:

- New entry-level emerging contractors have sufficient knowledge of construction management in order to successfully complete a construction project.
- Sufficient knowledge in business management among new entry-level emerging contractors is essential for survival in the business world.
- New entry-level emerging contractors' insufficient knowledge of the workings of building contracts could lead to possible unethical behaviour.
- The unethical actions of new entry-level emerging contractors affect their sustainable competitiveness.
- Construction-industry participants' non-participation in a code of conduct negatively affects the construction industry as a whole.

## **2. Ethics, sustainable competitiveness and management in the construction industry**

Literary sources on ethics and, more specifically, on business ethics, the relevance of ethics to sustainable competitiveness, the use and importance of construction-management knowledge for emerging contractors, the use and importance of building contractual knowledge for emerging contractors, the development and education of emerging contractors, as well as the effect that unethical behaviour might have on participants in the construction industry, as well as the industry itself were reviewed.

### **2.1 Introduction to ethics**

Ethics is not a new discipline, as it has been around for over a thousand years and is still a topic generally discussed by philosophers, professionals, and even at home around the dinner table. The issue of moral judgement is not a modern phenomenon; it has been an important and very interesting topic in historical and modern philosophy, giving way to the discipline of ethics. The following definition focuses on 'morality' as a perspective central to ethics (Hughes & Musselman, 1981: 522): "Ethics is a segment of philosophy concerned with values of human conduct. Ethics refers to a code of conduct that guides an individual in dealing with others."

In general, the terms 'ethical' or 'moral' are used interchangeably in normal conversation. It may be said that a person, a decision, or an act can be ethical or moral. This illustrates that the person is 'good', and that his/her actions are acceptable to the community. On the other hand, it may also be said that a person, or his/her decision or actions are unethical or immoral. This implies that the person is 'bad', or that his/her decisions and actions are unacceptable to society (Van der Merwe, 2002: 16).

Furthermore, it may be said that a business or organisation has the potential to be ethical and to do morally good or immorally bad things in its sphere of the business world (Van der Merwe, 2002: 16). Organisations or businesses are not created by nature, but by man. Consequently, these networks of human structures are also subject to moral criticism, since they may function immorally or unjustly in, and according to society's norms (Esterhuysen, 1991: 6). Numerous aspects such as society, business, the law and individual people influence ethical behaviour (Co, Emanuel, Groenewald, Mitchell, Nayager, Train, Van Zyl & Visser, 2006: 4).

Ethics relates to those social rules that influence people to be honest when dealing with others. What else is the construction industry other than individuals or organisations dealing with one another on a daily basis? The importance of ethics in any business or organisation is fundamental (Gildenhuys, 1991: 21). This has led to research being conducted to investigate the ethical conduct of new entry-level emerging contractors in their dealings with other participants in the construction industry – and how this conduct would influence their sustainable competitiveness within the industry.

The term 'competitiveness' could be described as follows (Gasa, 2012: 27): "Contractors being in a position to have both human and capital resources (capacity); contractors being able to marshal those resources for effective use in growing their businesses (capability); contractors being properly trained to undertake the work at hand, and any future work (training); contractors having the ability to provide solutions to clients (competence); and then being able to devise new ways of doing business and using advanced technologies (innovativeness)."

Ethics, together with moral values and norms, are linked and function interdependently of one another, since the one cannot be achieved without the other. The definitions for the term 'ethics' usually include other important terms such as 'morality', 'values' and 'integrity'. Ethics generally refers to the process that determines

whether an action is right or wrong, whereas morality refers to the contents of what is right and wrong (Rae, cited in Boshoff, 2009: 9).

The issue of moral judgement is not a modern phenomenon, as it has been an important and very interesting topic in historical and modern philosophy, leading to the modern discipline of ethics. An important phenomenon in the study of ethics is the notion that any person, in any culture and in any place, would always have acceptable or unacceptable moral and ethical norms and values for man's actions and decisions (Van der Merwe, 2002: 17).

Ethics relates to the social rules that influence people to be honest when dealing with others; ethics and morals thus seem to be related – with the term 'morals' referring to a code of conduct that is often part of our religious beliefs and our upbringing (Hughes & Musselman, 1981: 523). People tend to equate moral values and moral norms with values and norms, which apply only to those personal and relational structures with which they interact. Raga & Taylor (2014: online) are of the opinion that South Africa needs an organisational culture that not only supports ethical behaviour, but also defines and underpins right and wrong conduct at both the individual and institutional level.

Business ethics relates to the actions of employees within an organisation, as well as the actions and behaviour of an organisation as a whole (Van Greunen, 2010: 21). Apart from the requirement that organisations should run their operations in the most economical, efficient and effective manner possible in order to increase performance, there is currently an increasing insistence on the need for organisations to also be ethical (Khomba & Vermaak, 2012: 3510).

Figure 1 represents an ethical decision-making model.

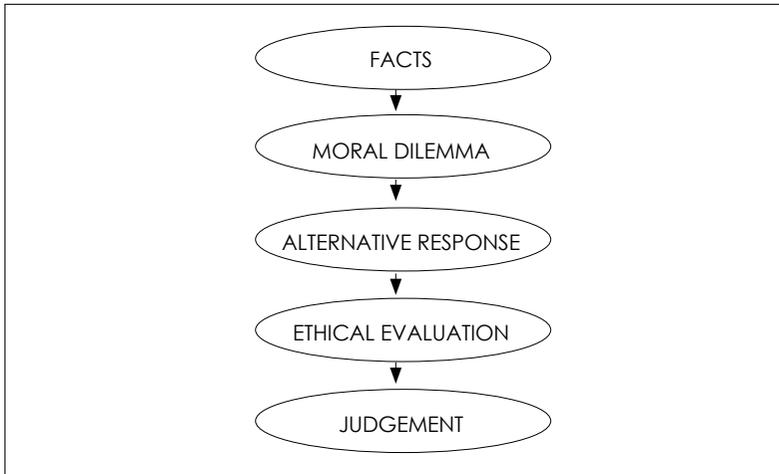


Figure 1: Ethical decision-making model

Source: Bosch, Tait & Venter, cited in Van Greunen (2010: 44)

Figure 1 demonstrates the general factors that can influence decision-making. The process starts with gathering and analysing all the facts concerning the ethical dilemma. Then the moral dilemma is formed and interpreted, whereafter all alternative responses to the dilemma are developed. One response is selected and applied; ethical evaluation of that response in the specific dilemma is conducted in order to determine whether it was the right one. Thereafter, judgement on the dilemma can be conducted.

The reasons for negative work ethics, as presented in a research project conducted by Masiapata (2007: 46-66) on ethics and ethos in the South African Police Service, included the following: Deficient control and accountability, poor management, poorly aligned incentive structures, over-centralised decision-making, leaner sentences (soft penalties) for corruptors, lack of ethical education and training, and resistance to change.

## 2.2 The South African construction industry

South Africa is a country that is focused on creating sustainable economic growth. The government has recognised the improved optimism, and has undertaken to create an environment that will stimulate more growth and entrepreneurial activity (Watson, 2004: 14). New contractors can be viewed as entrepreneurs, as they comply with the following definition that adequately describes

an entrepreneur and the goals to be attained (Cassim, Conradie, Ferreira, Fourie, Jacobs, Labuschagne, Le Roux, Machado & Steyn, 2004: 34): "Entrepreneurs are people with the ability to create an enterprise where none existed before. They produce combinations of ideas, skills, money, equipment and markets that form a successful enterprise."

New entry-level emerging contractors are faced with a number of challenges in the construction industry. Croswell & McCutcheon (2001: 365-379) explain that contract continuity holds the key to success. Without business continuity, the contractor is likely to go out of business, be unavailable for the work when required, and lose competence through lack of practice.

Change is an unceasing process; as such, a business must be in a position to respond continuously to changing environmental conditions. In the face of these changes, managing a construction business in the present environment is becoming increasingly difficult (Bakar, Razak, Tabassi & Yusof, 2012: 1295). Management is an important factor that influences a firm's growth, and this is especially applicable to new emerging contractors. Management consists of eight subfactors, namely good company management; good cash-flow management; internal efficiency; effective organizational structure; good site management, on-the-job safety and security; upgrading and educating members, and the availability of capital (Bakar *et al.*, 2012: 1297).

## **2.3 Sustainable competitiveness, management and building contracts**

### **2.3.1 Sustainable competitiveness**

Sustainable competitiveness is an important factor that could determine whether new entry-level emerging contractors will survive in the future. The fundamental basis for the long-run success of a firm is the achievement and maintenance of a sustainable competitive advantage. Sustainable competitive advantage can be defined as the prolonged benefit of implementing some unique value-creating strategy that is not simultaneously being implemented by any current or potential competitors, along with the inability to duplicate the benefits of this strategy (Hoffman, 2000: online).

With all the problems and issues that act as barriers to the successful running of new businesses, the importance of proper ethical conduct must be considered to be a solution to problems that stem from any unethical behaviour. Ethical conduct on its own may not ensure

the sustainable competitiveness of a business. However, when it is applied to the correct issues and people within the business, it could contribute to long-term sustainability, competitiveness and success.

Any favourable economic environment in South Africa is continuously stimulating development, but a lack of capacity is reflected in general skills shortages and support structures required for entrepreneurial development. These problems are acutely evident in the construction industry (Hauptfleisch & Verster, 2007: 33). Government interventions, in the form of legislation, were made to create an enabling environment for small contractors. These were disadvantaged under the pre-democratic period (pre-1994) to enter and/or progress in the construction industry. These entrepreneurs were commonly referred to as emerging contractors originating as contractors from a very low basis (Hauptfleisch & Verster, 2007: 33).

Recent studies have found that, despite their significance, small and medium-sized contractors are faced with the threat of failure – with statistics indicating that three out of five fail within the first few years. The lack of effective management during their early stages is a major cause of business failure for small and medium-sized contractors (Phaladi & Thwala, 2009: online; Mofokeng & Thwala, 2012: 143). Another major cause has been the inability to secure a constant or steady inflow of new work in order to sustain or grow the business.

### **2.3.2 Management**

For a construction project to be completed successfully, it must be managed successfully from inception to completion. Universities and universities of technologies across South Africa provide education in the discipline of construction management – in the form of a degree or diploma – and, although prior to registering as professional consultants in construction management consultants would need to obtain a degree and have a few years' experience in the field, it is unlikely that a start-up emerging contractor would have the same level of education and/or experience when opening up a business as a building contractor.

Herein lies the problem of inexperience and a lack of knowledge among new contractors in construction management. This lack of knowledge may essentially contribute to these contractors engaging in acts of unethical conduct in order to obtain contracts or keep their businesses running.

New entry-level emerging contractors not only have to know how to manage a construction project in order to complete it successfully,

but they also need to know how to manage their businesses successfully if they wish to still be active in the future. A continuous inflow of new work is also needed. Management can be defined as the process of getting work done through other persons; the process of management includes planning, organising, directing and controlling the activities of an enterprise, in order to achieve specific objectives (Hughes & Musselman, 1981: 90). Experience in any kind of management role is very important and plays a crucial role in ensuring that a business succeeds or fails. Poor management has been posited as one of the main causes of failure of small enterprises (Longenecker, Petty, Moore & Palich, cited in Mofokeng & Thwala, 2012: online).

### **2.3.3 Building contracts and contractor training**

Finsen (2005: 1) defines a building contract as “[a]n agreement between two parties, one of whom, the building contractor, agrees to erect a building; and the other, the employer, agrees to pay for it”. A detailed review of building contracts would not be applicable to this study. However, to have knowledge of such could prove useful, as it ensures that persons entering into a building contract, irrespective of which type of contract is available in South Africa, would know their rights and responsibilities.

In order to ensure that new entry-level emerging contractors have adequate knowledge and experience of the areas already reviewed in this study, namely ethics, business ethics, codes of conduct, construction, project and business management, and building contracts, it is necessary to educate and train them in these areas. Skills development in the built environment is a pressing concern in the current South African economy. With an increasing number of small to medium-sized enterprises emerging in the construction sector, it becomes increasingly challenging for authorities to regulate the level of skills and training of the country's construction workforce (Franck, 2013: 29). Moss (2008: 95) is of the opinion that ongoing training and mentoring of emerging contractors is a necessity to ensure that they improve their levels of literacy and competency in all aspects. This should contribute to the effective running of sustainable business enterprises. In addition, the ongoing monitoring of the progress and development of emerging contractors is essential to ensure sustainability of the emerging contractor enterprises.

Probably as early as 1995, the South African government has initiated a number of Contractor Development Programmes (CDPs) to encourage a wider participation of smaller firms in the construction

economy. CDPs play a crucial role in supporting the development of both the construction industry and emerging contractors (Gasa, 2012: 58).

The National CDP recognises that contractor development initiatives should, therefore, cover a broad spectrum of activities, including (CIDB, 2009: online): construction-workforce development; contractor development; emerging contractor development; enterprise development, and performance improvement. The various CDPs in South Africa include the following:

- National Department of Public Works Contractor Incubator Programme.
- Department of Public Works Eastern Cape Contractor Incubator Development Programme.
- Department of Public Works KwaZulu-Natal Masakhe Emerging Contractor Development Programme.
- Department of Public Works Western Cape Contractor Development Programme.
- KwaZulu-Natal eThekweni Vuk'upile Learnership Contractor Development Programme.
- KwaZulu-Natal eThekweni Large Contractor Model.
- The Eastern Cape Development Corporation Integrated Emerging Contractor Development Model.
- ESKOM Construction Academy.

The role of these institutions is very important to upgrade the skills of entry-level contractors to be competitive in an industry where it is extremely difficult to survive.

The relative lack of success facing emerging contractors in South Africa is the result of inadequate finance and the inability to obtain credit from suppliers; the inability to employ competent workers; poor pricing, tendering, and contract-documentation skills; poor mentoring; fronting for established contractors; lack of entrepreneurial skills; lack of proper training; lack of resources for either large or complex construction work; lack of technical, financial, contractual, and managerial skills, and late payment for the work done (Phaladi & Thwala, 2009: 199).

The literature review links the importance of ethical conduct in a business environment to other factors that might well influence the sustainable competitiveness of new entry-level emerging contractors.

### **3. Research methodology**

This article presents part of the findings of a research project on the ethical conduct of new entry-level emerging contractors in the South African construction industry, using a descriptive quantitative research approach. The first part of the research included an in-depth study done on the concept of ethics, and the relevance thereof for sustainable competitiveness among new entry-level emerging contractors by means of a literature review. The second part of the research entailed collecting and securing primary data, using a structured questionnaire completed by professional construction consultants. This article includes only parts of the literature review and research results.

The empirical research in this study took the form of a descriptive research-survey design. The process started with the development of the research problem statements, hypotheses and research objectives. This was followed by a literature review and a survey, in the form of a research questionnaire that was handed out to the identified study sample. This was conducted to collect the primary data.

Survey instruments can be broadly classified into two categories, namely questionnaires and interviews (Boubala, 2010: 55). The principle of voluntary participation was applied in this study. The research focused on new entry-level emerging contractors, as entrepreneurs and emerging contractors, as classified by the Construction Industry Development Board (CIDB), and was limited to potentially emerging contractors registered within the levels of 1 and 2 General Building (GB) classifications on the Register of Contractors (ROC). As ethics is a very sensitive topic in the industry and in order to avoid possible biased opinions by entry-level contractors (for fear of having their personal and organisations' names made public), it was better to rather obtain the views of consultants who had previously worked with emerging contractors. The research was conducted in the whole of South Africa and included a study sample of construction consultants only, *i.e.*, quantity surveyors, architects, consulting engineers, construction mentors, as well as construction and project managers. Sampling of the respondents was done on a purposive basis. Purposive sampling consists of handpicking supposedly typical groups of people or cases (Blaxter, Hughes & Tight, 2001: 163).

All the participants received a notice in the form of an e-mail explaining the nature of the study. The participants gave their informed consent by completing and returning the questionnaire.

They were also assured that all information provided would be kept confidential, and would be used for research purposes only.

Parametric tests, including the tests for the mean and mode values, the standard deviation, as well as frequency calculations, and skewness calculations were conducted on the collected primary data. All of these calculations were done using Microsoft Excel and via calculations on spreadsheets drawn up by using the software.

As stated earlier, the population for this study included professional consultants who are actively practising their professions in the South African construction industry. To obtain a representative sample that truly reflects the opinions of the identified population, the researcher had to carefully consider and scrutinise the nature and characteristics of the selected population, in order to determine the type, method and procedure of sampling.

As there are a great number of practising consultants in South Africa, it would have been impossible to contact all of them for the research survey and also manage to have their responses assessed within a reasonable period of time. Therefore, only a selected group of consultants, selected via purposive sampling, received the research questionnaire, because they met the criteria predetermined by the researcher and possessed specialist knowledge of the research issue. This constitutes a judgemental sample, because the researcher identified participants who were likely to provide data that would be comprehensive and pertinent to the research problems.

The sampling approach ensured that 100 participants were identified and contacted to participate in the study. A structured questionnaire was administered to the study sample, along with a covering letter. The types of questions used in the questionnaire were closed and open-ended questions, as well as scaled-response questions that included sliding and ranking scales. The questionnaire was divided into five main sections, each of which addressed, in a combination of questions, the main areas of the research.

A total of 100 participants were selected, of whom 49 returned completed questionnaires. The questionnaires were distributed and returned to the researcher by e-mail, or as printed copies by means of facsimiles. The returned questionnaires were scrutinised to identify any errors. Most of the returned questionnaires were of an acceptable standard. One questionnaire was rejected on the basis that it was not completed correctly, leaving 48 questionnaires to be analysed. Once the primary data had been collected, it had to be analysed, using appropriate methods as described earlier. Therefore,

a response rate of 48%, as measured on the basis of the usable completed questionnaires, could be considered good. As proof of this, a response rate of at least 50% can be considered adequate for conducting the analysis (Hurbissoon, 2011: 56). Data analysis comprised a body of methods that helped describe the facts, detect patterns, develop explanations, and test the hypotheses – as they are used in the sciences, business, administration, and policy. In data analysis, the raw data are ordered and organised to enable the extraction of useful information therefrom (Neneh, 2011: 112).

The researcher was completely clear about the purpose of the research, and all information was handled with the strictest confidentiality. The wording of the covering letter was formulated in a way likely to have prevented respondent bias.

### **3.1 Analysis and interpretation**

The analysis for the quantitative data dealt mainly with the frequency of the response data, the mode (the single number or score that occurs most frequently), the mean (the arithmetic average of the scores within a data set), the standard deviation (the measure of variability of a set of data), and the skewness (the degree of asymmetry).

For the purpose of this study, the following were applied to the results:

- The following scales are used to measure the importance of the respondents' perceptions. Thus, the mean rating comprises mean scores ranging from  $1.0 \leq M < 1.8$ : 'Strongly disagree'; from  $1.8 \leq M < 2.6$ : 'Disagree'; from  $2.6 \leq M \leq 3.4$ : 'Neutral'; from  $3.4 < M \leq 4.2$ : 'Agree', and from  $4.2 < M \leq 5.0$ : 'Strongly agree'.
- Mode rating. 'Strongly disagree': 1.0; 'Disagree': 2.0; 'Neutral': 3.0; 'Agree': 4.0, and 'Strongly agree': 5.0.

Respondents had to respond to 'yes' or 'no' questions or to questions using a five-point Likert sliding scale, anchored by descriptors ranging from (1) 'Strongly disagree', (2) 'Disagree', (3) 'Neutral', (4) 'Agree' to (5) 'Strongly agree', in the second set of questions. An 'Unsure' option was also included in the scale.

## **4. Results and discussion**

The headings of the specific sections, as set out in the questionnaire, were:

- Ethical conduct and sustainable competitiveness;

- Failure and liquidation among emerging contractors;
- Building contracts, and
- Fraudulent tender awards and unethical conduct.

Although the full research report includes a breakdown of the opinions of the consultants on each of the statements or questions in the questionnaire, only the overall results of each section are provided in this article.

#### 4.1 Ethical conduct and sustainable competitiveness

This section of the questionnaire covered the topic of ethical conduct, together with sustainable competitiveness, and dealt with the respondents' perceptions regarding ethical conduct in the construction industry and among new emerging contractors, as well as the importance of sustainable competitiveness, in order to ensure ethical conduct and the survival of these contractors.

Table 1: Ethical conduct and sustainable competitiveness: Closed questions 1.1-1.5

#	Question	Frequency %	
		Yes	No
1.1	Have you previously worked on a project together with an emerging contractor?	81.3	18.8
1.2	Was/Were the above mentioned project/s completed successfully?	63.2	39.5
1.3	In your opinion, do you think that emerging contractors are flooding the market?	73.9	26.1
1.4	In your opinion, do you think that the average start-up emerging contractor is sustainably competitive within the construction industry?	10.9	89.1
1.5	Do you feel that sustainable competitiveness is an important driver for starting and maintaining a business?	89.4	10.6

Although the respondents are clearly of the opinion that emerging contractors are flooding the market, many of the projects are still completed successfully. There is a perception that the average start-up emerging contractor is not sustainably competitive, but sustainable competitiveness is regarded as an important driver for starting and maintaining a business.

Respondents were then requested to state to what extent they agreed with the following statements, where SD = 'Strongly Disagree'; D = 'Disagree'; N = 'Neutral'; A = 'Agree'; SA = 'Strongly Agree', and U = 'Unsure'.

Table 2: Ethical conduct and sustainable competitiveness: Likert Scale for statements 1.6-1.13

#	Statement	Frequency %						Descriptive statistics			
		SD	D	N	A	SA	U	Mode	Mean	St. Dev.	Skew.
1.6	It is important that emerging contractors remain sustainably competitive within the market	4.2	0.0	12.5	20.8	62.5	0.0	5	4.38	1.00	-1.89
1.7	Corruption and fraud in the construction industry is a result of unethical actions by participants to the industry	0.0	4.2	2.1	10.4	83.2	0.0	5	4.73	0.71	-2.95
1.8	Some emerging contractors may be entering the market as a result of unethical drivers/motivators and not to run an honest business	4.2	4.2	18.8	25.0	45.8	2.1	5	4.06	1.13	-1.03
1.9	Unethical actions by emerging contractors can be linked to insufficient education in the discipline of ethics and moral conduct	4.2	2.1	12.5	31.2	50.0	0.0	5	4.21	1.03	-1.53
1.10	Fraudulent actions may lead to dispute situations in terms of a construction project	4.2	0.0	6.3	22.9	66.6	0.0	5	4.48	0.95	-2.38
1.11	Opportunities for fraud are unethical drivers for contractors to enter the construction industry	4.2	10.4	6.3	27.1	41.6	10.4	5	4.02	1.29	-0.94
1.12	If an emerging contractor's business is sustainably competitive, it could contribute to the survival of that business in the long term	2.1	2.1	4.2	18.7	68.7	4.2	5	4.57	0.89	-2.19
1.13	Emerging contractors could be securing contracts by unethical means, because they are trying to keep their business' doors open	4.2	6.3	27.1	22.9	35.3	4.2	5	3.83	1.20	-0.53

Table 2 shows that the majority of the respondents 'strongly agree' that emerging contractors need to be sustainably competitive in the market and that unethical actions in the industry may be caused by corruption. Some emerging contractors may be entering the market as a result of unethical drivers and this can result in unethical actions, such as ensuring contracts by unethical means; these are caused by insufficient education in ethics. These fraudulent actions can then lead to dispute situations.

Table 2 consists of statements pertaining to ethical conduct and its link with sustainable competitiveness. The results generally indicate that the majority of the respondents are of the opinion that ethical conduct is important in ensuring sustainable competitiveness among new entry-level emerging contractors; that unethical actions can result in corruption and lead to dispute situations, and that these types of contractors may be entering the industry – as a result of unethical drivers.

#### 4.2 Failure and liquidation among emerging contractors

The next section of the research questionnaire addressed the failure and liquidation among new entry-level emerging contractors in the South African construction industry. The aim was to determine whether the failure and liquidation rate among these companies is rising, and to identify the importance of management for the successful day-to-day running of a construction business, as well as for the survival of such a business in the near and long-term future.

Table 3: Failure and liquidation among new entry-level emerging contractors: Closed questions 2.1-2.3

#	Question	Frequency %	
		Yes	No
2.1	Have you ever worked on a project that could not be completed successfully, because an emerging contractor could not effectively manage the business/funds/resources/manpower?	66.7	33.3
2.2	Have you ever worked on a project where the client had to terminate the contract with an emerging contractor, because the contractor could not successfully manage or complete the project?	66.7	33.3
2.3	Have you ever worked on a project where an emerging contractor could not successfully purchase materials on time because of a lack of funds to do so?	75.0	25.0

As indicated in Table 3, the majority of the respondents agree ('yes') with the three statements. These statistics give an overall indication of the opinions of the consultants on the lack of management experienced by emerging contractors in building projects.

Respondents were then requested to state to what extent they agreed with the following statements, where SD = 'Strongly Disagree'; D = 'Disagree'; N = 'Neutral'; A = 'Agree'; SA = 'Strongly Agree', and U = 'Unsure'.

Table 4 shows that respondents are of the opinion that the incorrect management of project resources, not purchasing materials on time, and contract terminations cause strain and delay completion. This may be caused by insufficient experience and knowledge in the management of projects. It is also unclear whether the NCDP has been successful in the past 5 years.

Financial errors can be the result of insufficient financial management knowledge/experience; misrepresentation of finances can lead to fraud and business failure.

Table 4: Failure and liquidation among new entry-level emerging contractors: Likert scale for statements 2.4-2.10

#	Statement	Frequency %						Descriptive statistics			
		SD	D	N	A	SA	U	Mode	Mean	St. Dev.	Skew.
2.4	The fact that a project could not be completed successfully, because an emerging contractor could not effectively manage the business/funds/ manpower, can put strain on the execution of a project and delay completion	4.2	0.0	4.2	4.2	87.4	0.0	5	4.71	0.90	-3.31
2.5	The fact that the client had to terminate the contract with an emerging contractor, because the contractor could not successfully manage or complete the project, can put strain on the execution of a project and delay completion	4.2	0.0	0.0	6.3	85.3	4.2	5	4.76	0.87	-3.56
2.6	The fact that an emerging contractor could not successfully purchase materials on time because of a lack of funds to do so can put strain on the execution of a project and delay completion	4.2	0.0	0.0	8.3	87.5	0.0	5	4.75	0.84	-3.87
2.7	The average emerging contractor has sufficient knowledge of, and experience in managing construction projects	33.3	37.5	16.7	4.2	6.3	2.0	2	2.11	1.25	1.27
2.8	The National Contractor Development Programme (NCDP), aimed at developing and assisting previously disadvantaged contractors so that they can remain competitive in their working environment and at helping them in ensuring their sustainable competitiveness, has been successful over the past 5 years.	12.5	16.7	37.5	4.2	6.3	22.8	3	2.68	1.70	0.38
2.9	Insufficient management and financial knowledge can lead to accounting errors and misrepresentation of organisational funds	2.1	2.1	2.1	20.8	72.9	0.0	5	4.60	0.82	-2.88
2.10	Misrepresentation of funds can lead to fraud and failure of the business to survive	6.3	0.0	6.3	29.2	58.2	0.0	5	4.33	1.06	-2.10

Respondents were also requested to rate the importance of effective management practices for the day-to-day running of a business. The results are indicated in Table 5.

Table 5: Failure and liquidation among new entry-level emerging contractors: Rating scale for statements 2.11-2.16

#	Statement	Frequency %						Descriptive statistics			
		Not important		Very important		U	Mode	Mean	St. Dev.	Skew.	
2.11	General management: as a fundamental to successful overall management of a business	2.1	0.0	0.0	22.9	75.0	0.0	5	4.69	0.69	-3.57
2.12	Human resources management: as a fundamental to successfully manage scarce manpower resources	0.0	0.0	4.2	27.1	68.7	0.0	5	4.65	0.56	-1.35
2.13	Financial management: as a fundamental to successfully manage scarce monetary resources of a business	0.0	2.1	0.0	14.6	83.3	0.0	5	4.79	0.54	-3.43
2.14	Planning and decision-making: as a critical element to identify a business' goals and develop a strategy for achieving them	2.1	0.0	0.0	18.8	77.0	2.1	5	4.72	0.70	-3.50
2.15	Communication management: as a critical element to ensure effective translation of tasks, orders, etc.	2.1	0.0	4.2	12.5	81.2	0.0	5	4.71	0.74	-3.37
2.16	Construction programmes: as a critical resource to help plan the timing and amount of incomes and expenditures during the construction phase of a project	0.0	0.0	2.1	12.5	85.4	0.0	5	4.83	0.45	-2.38

The results in Table 5 indicate that the respondents 'strongly agree' that all of the six listed management disciplines (general, human resources, financial, planning and decision-making, communication, and construction programmes) are crucial to ensure the sustainable

competitiveness and survival of new entry-level emerging contracting companies.

Tables 3, 4 and 5 consist of statements mainly pertaining to the importance of management in business and construction projects. The results generally indicate that the majority of the respondents were of the opinion that management and all of its disciplines are very important for contracting businesses, and that insufficient experience or knowledge thereof could lead to unethical actions, contract terminations, or project-completion delays.

### 4.3 Building contracts

The next section of the research questionnaire dealt with a review on the frequency of dispute-resolution cases and contract terminations among projects undertaken by emerging contractors. For the purpose of this section, the research focused on the JBCC Principal Building Agreement (PBA) contract, as the main method for ensuring contractual agreement between parties in the construction industry.

Table 6: Dispute resolution cases and contract terminations: Closed questions 3.1 and 3.2

#	Question	Frequency %	
		Yes	No
3.1	Have you ever worked on a project with an emerging contractor who had little/no/insufficient knowledge of the workings of the building contract he signed?	63.8	36.2
3.2	Was it ever necessary for you as consultant to explain/educate an emerging contractor on the workings of the building contract whilst working together on a project?	76.1	23.9

Table 6 indicates that the majority of the respondents (63.8%) have worked with a new entry-level emerging contractor who had insufficient or no knowledge of the building contract, as well as that the majority (76.1%) of the respondents found it necessary to explain or educate a new entry-level emerging contractor on the workings of a building contract during the project.

Respondents were then requested to state to what extent they agreed with the following statements, where SD = 'Strongly Disagree'; D = 'Disagree'; N = 'Neutral'; A = 'Agree'; SA = 'Strongly Agree', and U = 'Unsure'.

Table 7: Dispute resolution cases and contract terminations: Likert scale for statements 3.3-3.12

#	Statement	Frequency %						Descriptive statistics			
		SD	D	N	A	SA	U	Mode	Mean	St.Dev/	Skew
3.3	A good understanding of the PBA is essential for the successful completion of a project	0.0	0.0	6.4	14.9	78.7	0.0	5	4.72	0.58	-2.02
3.4	A formal education on building contracts is necessary to ensure a good understanding of the workings thereof	0.0	2.1	10.6	21.3	66.0	0.0	5	4.51	0.78	-1.49
3.5	The majority of emerging contractors have sufficient knowledge of building contracts that allow them to complete projects successfully	38.3	23.4	19.2	10.6	2.1	6.4	1	2.09	1.46	1.07
3.6	It is necessary that all emerging contractors first be educated on building contracts before they are allowed to participate in the industry	4.3	2.1	8.5	10.6	74.5	0.0	5	4.49	1.04	-2.21
3.7	Emerging contractors with insufficient knowledge of building contracts are more prone to make mistakes regarding their rights and responsibilities during the contract period	4.3	4.3	0.0	14.9	76.5	0.0	5	4.55	1.02	-2.61
3.8	Emerging contractors with insufficient knowledge of building contracts are more prone to unethical behaviour concerning contractual matters	4.3	10.6	21.3	21.3	42.5	0.0	5	3.87	1.21	-0.75
3.9	Disputes are more likely to arise as a result of emerging contractors having insufficient knowledge of the workings of a building contract	0.0	4.3	8.5	17.0	70.2	0.0	5	4.53	0.83	-1.77
3.10	Fraudulent actions have a negative effect on the construction industry	2.1	2.1	0.0	4.3	91.5	0.0	5	4.81	0.74	-4.36
3.11	If emerging contractors had sufficient knowledge of building contracts, it would contribute to the sustainable competitiveness of their projects and businesses	2.1	0.0	10.6	19.2	68.1	0.0	5	4.51	0.86	-2.08
3.12	Insufficient knowledge of building contracts may lead emerging contractors to commit unethical actions out of inexperience	4.3	4.3	10.6	29.8	46.8	4.2	5	4.16	1.12	-1.21

Table 7 indicates that the majority of the respondents 'strongly agree' that emerging contractors need to be educated on building contracts prior to entering the industry, as a good understanding of the PBA is essential; emerging contractors with insufficient knowledge of building contracts are more prone to contractual mistakes and unethical actions.

It is also clear that disputes are more likely to arise when emerging contractors have insufficient knowledge of building contracts; these fraudulent actions have a negative effect on the construction industry. Emerging contractors with sufficient knowledge of building contracts contribute to their sustainable competitiveness.

Tables 6 and 7 consist of statements pertaining to the importance of a good knowledge of building contracts. The results generally indicate that new entry-level emerging contractors do need a good understanding of the building contracts they will enter into when working in the industry. Furthermore, the results also indicate that new entry-level emerging contractors may need to be educated in the workings of building contracts, and that a knowledge and understanding of building contracts may prevent fraudulent and unethical actions in the industry.

#### **4.4 Fraudulent tender awards and unethical conduct**

The last section of the questionnaire dealt with fraudulent tender awards in the construction industry, as well as unethical behaviour among participants in a building contract. The effects of unethical behaviour and the use of a code of conduct to limit unethical behaviour were also researched.

Respondents were then requested to state to what extent they agreed with the following statements, where SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree and U=Unsure.

Table 8: Fraudulent tender awards and unethical behaviour: Likert scale for statements 4.1-4.9

#	Statement	Frequency %						Descriptive statistics			
		SD	D	N	A	SA	U	Mode	Mean	St.Dev.	Skew.
4.1	If one member of a project team acts unethically, it has a negative effect on all the other members on the team	2.1	8.3	4.2	22.9	62.5	0.0	5	4.35	1.04	-1.72
4.2	Unethical behaviour/actions by participants to the construction industry have a negative effect on the industry	0.0	4.2	4.2	12.5	79.2	0.0	5	4.67	0.75	-2.47
4.3	The number of contract tenders awarded on an unethical basis are increasing	4.2	0.0	22.9	20.8	37.5	14.6	5	4.02	1.22	-0.71
4.4	The awarding of tenders on an unethical basis acts as motivation for emerging contractors to obtain tenders in an unethical manner	2.1	4.2	10.4	27.1	52.1	4.2	5	4.28	1.02	-1.23
4.5	Ethics is fundamental to the moral behaviour of all participants to a construction project	2.1	0.0	2.1	22.9	72.9	0.0	5	4.65	0.73	-3.11
4.6	When a contract is awarded on the basis of unethical actions, it can negatively impact on the consultants who have to work with that contractor	2.1	2.1	8.3	14.6	72.9	0.0	5	4.54	0.90	-2.24
4.7	When registering as a professional consultant, one agrees to the respective council's professional code of conduct. Bodies/councils for contractors should educate their members in the discipline of ethics and their codes of conduct	2.1	0.0	4.2	14.6	79.2	0.0	5	4.69	0.75	-3.23
4.8	A knowledge of ethics and participation in a code of conduct complement the management style of a business owner or senior manager	2.1	0.0	6.3	10.4	81.3	0.0	5	4.69	0.78	-3.09
4.9	Knowledge of ethics and participation in a code of conduct prevent fraudulent actions in the construction industry	4.2	0.0	8.3	33.3	52.1	2.1	5	4.32	0.98	-1.78

The results in Table 8 indicate that the majority of the respondents 'strongly agree' that when one member of a project team acts unethically, it negatively affects the remainder of the team and this, in turn, has a negative effect on the industry itself.

Table 8 consists of statements pertaining to the effects of unethical conduct, and the importance of codes of conduct. The results generally indicate that unethical actions have a negative effect on the construction industry, on other participants in the industry, or on a project team. The results also indicate that ethics and an education in ethics, moral actions and codes of conduct is important, and that new entry-level emerging contractors could benefit from it.

#### **4.5 Other findings**

- Fifty-one construction companies had to liquidate their companies over the past five years (as known to respondents).
- Twenty-nine per cent of the respondents were aware of building contracts that were awarded by means of unethical actions.
- Unethical behaviour has a negative effect, not only on the construction industry, but also on all parties in the industry, as this can affect the project outcome and success.
- There is an urgent need to educate all construction industry stakeholders in ethics and ethical conduct.
- Ethics is crucial in the construction industry. The respondents stressed that contractors would need to have a Board or Council that exerts pressure on them to act ethically and to conform to a set code of conduct.
- Ethics and the value thereof must be imprinted, not only on the emerging contractors, but also on the clients who appoint these contractors.

### **5. Conclusions**

The literature revealed how ethical conduct is applicable to new entry-level emerging contractors in their dealings with other participants in the construction industry, and that ethical conduct is relevant to the sustainable competitiveness among new entry-level emerging contractors. This is an issue regarding business ethics in the South African construction industry. The literature also revealed that effective management (in the fields of business, project and construction management), entrepreneurship, sustainable competitiveness, competitive advantage, contractor development

and a sound knowledge of building contracts should play a role in the maintenance of ethical conduct.

The empirical results revealed that corruption and fraud in the construction industry is a result of unethical actions by participants in the industry. Ethical conduct is, therefore, an important factor in any business environment and is fundamental to the moral behaviour of all participants in a construction project. The correct application thereof can partially contribute to the sustainable competitiveness of new entry-level emerging contractors.

Management is a fundamental discipline relevant to all business environments. Unfortunately, the average new entry-level emerging contractor in South Africa has insufficient experience and knowledge of the management of construction projects.

Following the rules stipulated in building contracts would also ensure ethical conduct during a construction project, as emerging contractors with insufficient knowledge of building contracts are more prone to unethical behaviour in contractual matters. If emerging contractors had sufficient knowledge of building contracts, this would contribute to the sustainable competitiveness of their businesses.

As a thorough knowledge of ethics and participation in a code of conduct could prevent unethical actions in the construction industry, it is crucial that new entry-level emerging contractors should be educated in the discipline of ethics that will help sustain their competitiveness in the industry.

The awarding of tenders on an unethical basis acts as motivation for new entry-level emerging contractors to obtain tenders in an unethical manner; these unethical and fraudulent actions of participants to the industry have a negative effect on the South African construction industry as a whole. This should not be tolerated.

## **6. Recommendations**

First, with regard to ethical conduct among new entry-level emerging contractors, it is recommended that professional bodies and/or councils for contractors should educate their members on the discipline of ethics and their respective codes of conduct by holding regular training sessions.

Secondly, with regard to the sustainable competitiveness of new entry-level emerging contractors, it is recommended that this type

of contractor should receive training and education in the management discipline pertaining to businesses.

Thirdly, with regard to the necessity and importance of building contracts, it is recommended that the CIDB and Master Builder Associations in South Africa should make it a priority issue to educate their members on the range of building contracts that are available in the industry.

Fourthly, with regard to the effect of unethical behaviour on the construction industry and its participants, care must be taken by all those who are, in any way, active in the industry to always act morally and with respect towards each other, and the businesses that function in the industry.

Lastly, it is vitally important that the skills of entry-level contractors be upgraded continuously and that training institutions that administer training and mentoring programmes should budget for the monitoring of entry-level contractors to ensure their successful sustainability.

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