




FACTORS IMPACTING OPERATIONAL PERFORMANCE OF SMALL AND EMERGING BLACK CONTRACTORS IN GAUTENG, SOUTH AFRICA

Grace Masianoga¹, Eleck Shabani Masianoga², Leonard Chakauya^{3*} 

Author Details

¹Main Author-Grace Masianoga (MBA) is a Masters in business administration graduate with Milpark Business School in Johannesburg, South Africa.

²Second Author-Dr. Eleck Shabani Masianoga (DBM) is a doctorate candidate with Regenesys Business School, Business Management in Johannesburg, South Africa.

^{3*}Corresponding Author-Leonard Chakauya (MBA) is a research consultant for Afremac Management Consultancy in Johannesburg, South Africa. E-mail: afremac@gmail.com

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ABSTRACT

This study was aimed at examining the factors influencing the operational performance of small and emerging contractors in construction projects in Gauteng, South Africa. The study took a qualitative approach, conducting eight semi-structured interviews with selected respondents, and using judgemental random sampling from two large and three small emerging construction companies. The study results revealed that the factors affecting the performance of emerging contractors are project planning, skilled human resources, funding, ability to innovate, quality products and services, pricing, management, and health and safety plans. Successful operational performance is attained by project planning, competent and skilled staff, risk management and retention of skilled staff. Factors that lead to failure to perform during a construction project are insufficient funding, reliance on unreliable suppliers and subcontractors, lack of project management skills, lack of skilled personnel and lack of knowledge of legislation. The impact of these factors varies, depending on the size of the organisation. Small contractors are severely affected by a lack of funding, skilled personnel, project knowledge, and legislative knowledge. The large emerging contractors have developed and are either no longer affected by all the factors or only affected to a certain level. It is recommended that emerging contractors ensure staff training and development, a learning organisation culture that innovates, staff retention initiatives, government training and funding initiatives.

INTRODUCTION

Since the commencement of democracy in 1994, the South African government has focused on levelling the playing field for all construction companies [1]. The government has consciously chosen to alleviate historically disadvantaged individuals (HDIs) and small, medium and micro enterprises (SMMEs) by involving them in such schemes. This is in conjunction with an understanding that SMMEs are an important player in the economic landscape in developing nations. Thwala and Phaladi [2] argued that small construction companies are vital to public sector service delivery schemes and in reducing unskilled and semi-skilled unemployment. Ncwadi and Dangalazan [3] also claim that the South African government contracts HDIs to deliver on infrastructure obligations, such as stormwater drainage, roads, sanitation and water, under the scheme of emerging small construction companies. To develop into sustainable enterprises, these emerging contractors require vast construction experience and knowledge. In this way, emerging contractors have a critical part in the economy of South Africa, particularly when providing services to public sector construction projects. As an evolving economy, the South African government has adopted the National Development Plan 2030 (NDP), which emphasises that the construction sector has a major role to play in generating jobs and developing the local economy [4]. In line with the black economic empowerment (BEE) programme, the benchmark has been set by the South African government for the percentage of each sector to be manned by businesses owned by blacks [2]. Big, previously white-owned businesses disposed of their assets to complete this goal, with the first transaction occurring in late 2000 [1]. In 1996, the new democracy in South Africa introduced several emerging contractor development policies through which it grants a specific percentage of its public service construction projects to HDIs in construction, to facilitate the growth of viable construction companies, and competent skills, ensuring the redistribution of wealth and creation of jobs [5].

According to SASTats [6], the Gross Value Add (GVA) for SMMEs has risen from 18% in 2010 to 22% in 2015. However, according to the Department of Trade and Industry (DTI) [7], the increase in the number of emerging contractors in the period 2008-2015 was below the economic growth rate, suggesting aggravating circumstances in the operations of SMMEs, and threatening their longevity. Research such as [8, 9, 10] found that established construction companies have been timeously delivering their contractual obligations, while small emerging construction companies are famous for executing their construction projects late, with low quality at high costs [11]. The effect has been a reduction in the emerging contractors' sector, as revenues have declined, and enterprises have been forced to close. It is against this background that this study aims to this research study aimed to analyse factors that impact the operational performance of SMMEs in the construction industry.

Emerging contractor and operating performance concept

An emerging contractor could be defined as an enterprise or person, which is controlled, managed and owned by historically disadvantaged individuals and is conquering business hindrances resulting from the apartheid legacy [12]. These businesses are alternatively known as small-scale contractors and small, medium and micro construction businesses. Emerging contractors are commonly identified by managerial support, equipment and limited capital resources, which hamper their capacity to employ and recruit professionals and skilled employees [13]. When clarifying the concept of emerging contractors in South Africa, the Department of Public Works [5] includes SMMEs managed and owned by historically disadvantaged individuals with an annual turnover below the specific threshold and a low number of workers. The components, such as technical and financial capabilities, capital availability and annual turnover are some of the ranking methods utilised to classify South Africa's emerging contractors [10].

Emerging contractors have an essential role in the South African economy. For example, at the end of June 2017, the total number of workers in the construction sector was 543 686 and big businesses had in employment 35.6% (193 786) of the construction industry workers, followed by the micro-businesses employing 30.8% (167 620), which has increased by 24% in the last quarter of 2017 [14]. Recent studies reveal that despite their significance, small and medium contractors are threatened by failure, with statistics indicating that three out of five fails within the first few years [2]. As held by Thwala and Phaladi [2], emerging contractors' lack of effective management is the main reason they fail. An important feature of emerging contractors is that they are mostly unregistered, operating informally with very minimal formal business systems.

Time, cost and quality, commonly known as the 'Iron Triangle', have long been seen as the major criteria to use when evaluating the performance and success of construction schemes [15]. Even though the Iron Triangle has been commonly employed to assess success, this criteria of project success turned out to be far more perplexing and have given rise to more competitive methods [16]. A scheme that may seem satisfactory to the client may be a dismal failure in the eyes of the contractor [17]. Therefore, for an architect, a project's success is based on apparent performance, and for a contractor, a project is an accomplishment when the contractor gets a return from the project [18].

A study carried out by Cheung et al. [19] revealed that there are seven major key performance indicators: time, cost, quality, client satisfaction, client changes, business performance and health and safety. According to the CIDB [12], project performance can be quantified against the guidelines of time management, cost management, quality management, health and safety management, site management and sub-contractor management [12]. Therefore, project operational performance can be monitored through the life-cycle of a project to achieve pre-determined objectives. These objectives may be one of the seven key performance indicators recognised by the CIDB [12], those proposed by Cheung et al. [19], or a combination thereof.

Factors affecting the operating performance of emerging contractors

According to Hanson et al. [20], contractor performance in South Africa is affected by inadequate workmanship and contractor incompetence. This affects the contractors' track record or reputation and, consequently, their suitability for future contracts. Gha-

rakhani et al. [21] revealed that 'image' affects client or customer fulfilment. The importance of construction project planning is a result of the nature of work in construction, which has a finite start and finish. According to Enshassi et al. [22], the construction sector is a fragmented sector that is susceptible to economic cycles with a high business failure rate for those who do not observe project planning. If emerging contractors lack technical skills and qualifications, it is difficult to expect them to perform well [23]. According to Smith [24], it must be either the owner or one of the permanent staff who possesses technical skills to enable good operational performance through technical competence.

Capital and cashflows are the backbones of all construction companies [24]. According to Thwala and Mvumbu, [23], a construction company that cannot generate adequate working capital is unable to meet its financial commitments to fulfil its projects. Revenue is generated when a contractor is executing and completing more contracts successfully, which are then paid for [15]. However, Eyiah [13] describes the capacity of a contractor as having financial capital. Consequently, an emerging contractor cannot perform optimally unless funded sufficiently. However, guarantees and funding are not easily accessible from South African banks. A claim by Thwala and Mvubu, [23] that, lack of access to finance during pre-construction disqualifies emerging contractors from meeting performance and guarantee bond requirements, and this leads to incomplete work as a result of cash flow problems and consequently liquidation.

Foxcroft et al. [25] asserted that 75% of bank credit applications by emerging contractors in South Africa are not approved. This suggests that these small emerging contractors are faced with collateral prejudice from the financial organisation, which, according to Olawale and Garwe [26], without finance, small emerging contractors may not survive or grow. In addition, credit is seen to harm small business profit and survival, especially if it comes with high interest ([27]).

According to Greyling [28], weak financial and cash flow management has been observed among emerging contractors, affecting the business's ability to work successfully. Poor cash flow management has been cited in other studies as one of the major causes of failure in small businesses [28]. This concurs with Truong-Van Luu [29], whose study of the construction industry in Vietnam found better management of receivable accounts and careful evaluation of the financial capacity of owners as meaningful factors for measuring strategic and operational performance.

According to Eyiah [13], accounting and financial skills assist the construction firm to reach sound financial and economic decisions that lead to improved project results, as well as the best usage of tax and financial benefits. Coolidge and Illic's [30] study found that small emerging contractors find accountants or professional bookkeepers too costly to employ. Twala and Phaladi [2] argue that small emerging contractors have poor record keeping that keeps them from not recording important business transactions. Furthermore, Thwala and Phaladi [2], argue that small emerging contractor business failure is mainly caused by a lack of effective management in their early stages of operation.

Innovation enables a company to execute embraced expertise through appropriate management techniques to improve its skills and efficiency [31]. Through innovation, improvement and non-trivial change in a system, product or process become possible [32]. According to Amabile et al. [33], innovation creates successful ideas for execution in an organisation. Therefore, according to Hadjimanolis [34], the extra innovation a company has, the bigger its profit margin, employment growth and its capacity. Similarly, Eaton et al. [31] and Egbu [35], argue that the technological innovations of companies save time and reduce costs, in that way improving operating performance. In addition, as held by Hitt et al. [36] companies that are likely to perform better in the long run, invest a great number of resources in innovative competencies.

Contractors operating performance success factors

According to Cox et al. [37], on-time completion functions as a complete assessment of operating performance in line with planned timelines. Therefore, planning helps to eradicate time overruns and without planning, good quality and costs cannot be achieved. Ling et al. [38] describe quality as the output quality of work done or service rendered to workmanship and technical standards. Human resource is yet another critical element for company success [39]. However, Armstrong [40] argues that human resources can be the weaknesses or strengths of a company. Just as physical resources, such as financial capacity, equipment and raw materials can constrain or improve productivity; similarly human resources can achieve the same with skills, experience or training. Accordingly, skills shortage can affect a contractor's supervision and experience, which has a great impact on the delivery of a project [41]. As such, the working experience could be a basis of a sustainable competitive advantage which leads to superior operating performance for a firm. According to Otim et al. [42], although importance is placed on the knowledge and skills to make sure there is the successful delivery of projects, such knowledge and skills can empower the emerging contractor to operate a business successfully, attain sustained growth and remain competitive.

The construction industry requires technical competency as the most critical skill to make sure construction projects are effective and of high quality [43]. However, Eyiah [13] argue that the most technically qualified contractors do not necessarily run businesses successfully, excel in the delivery of projects or win the most work. Emerging contractors require a balanced variety of capabilities that consist of business skills, negotiation, sales and marketing. Negotiation skills are vital due to the conditions and terms of contracts that can pose cash flow problems and risks to the contractor's overall project delivery ability profitably and successfully [41]. As held by Eyiah [13], negotiation skills allow the construction firm to attain advantageous concessions that minimise imminent cash flow problems and risks on a project. As a result of negotiation skills, a contractor can avoid litigations, arbitration, adjudications, disputes and conflicts, which are time-consuming and costly [41].

According to Miles [17], a project is regarded as successful when the development is completed within set guidelines, on time, and when the quality is satisfactory to all. Such success is described when considerably improved outcomes than anticipated are ordinarily attained in terms of security, quality, schedule and cost [44]. Where the workmanship is poor, it then costs the client more to appoint another contractor to rectify the mistakes of the previous contractor, as the work is of such a poor quality that additional funds either is needed to be spent on repair work or the existing work needs to redo it [45]. Research by Sweis et al. [46] found that poor performance by contractors is often due to a deficiency or shortage of technical professionals in organisations. Croswell and McCutcheon [18] also acknowledged the lack of technical expertise as a reason for the poor performance of emerging contractors. Higher levels of human resources and strategic planning have an important effect on operational performance, including greater overall efficiency, greater cost-effectiveness and higher productivity [47]. Gratton et al. [48] posit that the motivation and skills of personnel serve to retain, develop and train, improve a firm's competitiveness. However, Wong and Thomas [49] stated that high competition, low-profit margins, high risk and the unpredictability in the demand for work make emerging construction susceptible to failure and management skills involve managing risks, i.e. evaluating, monitoring and identifying the functions or activities of the company, to maximize the firm's opportunities and minimise the firms losses [50].

Contractors operating performance inhibiting factors

As held by Thwala and Phaladi [2] the major cause of business failure for emerging contractors is the lack of effective management in the early stages of the operations. A construction project is regarded as a success when the work is finished timeously, within set guidelines, and with satisfactory quality approved by all parties [17]. Success has also been described as a much better attainment of results than anticipated or generally achieved in terms of quality, scheduling, cost and security [44]. The research by Sweis et al. [46] found that contractors' poor performance is due to a deficiency or shortage of technical professionals in their organisations. In addition, Croswell and McCutcheon [18] also acknowledged the lack of technical expertise as a reason for emerging contractors' poor performance. According to Sweis et al. [46], some of the issues that affect contractor performance in the construction sector are unprofessional project planning and scheduling. The most known reason for construction firms' failure is insufficient cash resources exacerbated by their inability to persuade creditors to give them credit terms when facing liquidity constraints [51]. Operational expertise that involves business skills and project management, such as financial accounting and planning are key to business success [23]. Adams [1] recognised the lack of skilled labour as another of the main reasons for emerging contractor demise in the construction business. Hanson et al. (2013) postulated that contractor performance in South Africa is influenced by contractor incompetence and inadequate workmanship. Sound management entails alertness to all factors making up a progressive business, including good financial control, pricing, marketing and strategy [51].

In light of the reviewed literature, to address the primary objective, the following secondary objectives guided the study:

- To identify the determinants of the operating performance of emerging construction companies.
- To assess the factors that influence satisfactory project delivery by emerging construction companies.
- To evaluate the factors causing the failure of project execution by emerging construction organisations.

METHODS

Research approach

This study implemented the multi-case study design, as more than one organisation was included to evaluate the operational efficiency of these SMMEs operating in the construction industry based in Gauteng Province, South Africa. This study design is targeted at acquiring a textured, rich investigation of the social process of operational efficiency using non-numeric techniques. As stated by Berg [52], a case study technique aids in revealing numerous facets from an explanatory perspective. A qualitative study was carried out, which acknowledges that meaning emerges through collaboration and is not standardised from one individual to another as in a quantitative study, thereby permitting a detailed appraisal of the study concerns without predestined classes of data analysis [53]. Purposive sampling was adopted, where only SMME management of eight large (in terms of income) SMMEs and eight small (in terms of income) SMMEs were selected to take part in this study, as these respondents are aware of operational performance and its related factors. The study sampled various SMMEs' top management to minimise the costs and time to make this study feasible. When selecting the sample, the researcher included respondents from the formal emerging construction sector with 15 years of experience or more, who understand the industry in detail. The emphasis on the managers of these businesses was that as custodians of all strategic and operational concerns, they could offer reliable information on the research topic of operational performance.

Data collection method

Interview guides, with open-ended questions, were utilised to direct the face-to-face interviews to collect detailed and relevant data. A list of questions that focused on the study objectives was asked. In undertaking the interviews, the focus was placed on the respondents' opinions, the ability to acquire rich and detailed answers, and the flexibility afforded during the interview procedure, which permitted further information to be obtained via follow-up questions.

Data analysis method

Content and thematic analysis were adopted in this research to facilitate data analysis. Silverman [54] stated that content analysis allows researchers to identify contrasts that arise from the data. The thematic analysis provides a more comprehensive analysis of certain areas of the data gathered, connecting them directly to the research question and attempting to fit them into a pre-determined coding framework [55]. Themes were formulated via a data transcription of interview recording, which included code generation and exploring for main themes to answer the study questions, with an audit trail to guarantee the credibility and dependability of the findings. To guarantee the trustworthiness of this research, the study triangulated the primary data with the literature assessment and secondary data to reach balanced conclusions [56].

RESULTS AND DISCUSSIONS

Demographic data

The six respondents from senior management were selected from small and emerging black contractors and their demographic information was analysed. The sample comprised 67% male respondents and 33% female respondents. A total of 17% of the respondents had a first degree, 66% had a master's degree, and 17% had a doctorate. This reflects that the respondents were of sufficient education to understand beyond the basic form of the operational performance phenomenon. Two of the respondents have worked at their organisation for less than 5 years, one has worked at their organisation for 5 to 10 years, two for 11 to 15 years, and one had worked for over 15 years. This reflects a varied mix of respondents who have gone through long phases of their organisation's life cycle and are therefore able to understand the dynamics of the operation within the construction industry.

Data collection and analysis procedure

The six respondents were interviewed separately for 30 to 45 minutes in the firm's meeting room where there were no disruptions. The discussions were recorded using a voice recorder and transcribed on the same day into written form using Adobe Reader software. The written recording script from each respondent was coded using numbers and letters saved in encrypted files on a memory stick. The six transcribed written scripts were then manually examined, using thematic and content analysis to detect the sub-themes and main themes presented in the next section.

Factors affecting the operational performance of small and emerging construction companies in Gauteng

Project planning factors

As reflected in the literature, a construction project is performed to acceptable levels if proper planning exists on how the project should be executed. This was confirmed in the following response from Respondent M001:

What many people call programming, how do you programme your work? How do you plan your activities on site to say, is the plan in line with you, and what has been the customer's requirement?

The importance of construction project planning is a result of the nature of work in construction, which has a finite start and finish. According to Enshassi et al. [22], the construction sector is a fragmented sector that is susceptible to economic cycles with a high business failure rate for those who do not observe project planning. Resources would need to be allocated and allotted for the successful operation of each specific project. While the contractor's business is ongoing, each project is executed and evaluated for its profit or loss. Therefore, it is important to plan properly to ensure operational efficiency and effectiveness.

Human resource factors

Yet another factor identified in the literature was the need for employees with the right skills, right experience and knowledge of construction work, which are important for good performance. In this study, Respondent X001 from a small contractor had this to say:

You also want skilled people. You need to have skilled individuals, and most of the time we lack competent staff.

This was also confirmed by Respondent B001 from a large emerging contractor, who said,

The key factor that affects construction operations is generic engineering capacity.

This confirms the argument in the literature that if emerging contractors lack technical skills and qualifications, it is difficult to expect

them to perform well [23]. According to Smith [24], it must be either the owner or one of the permanent staff who possesses technical skills to enable good operational performance through technical competence. Therefore, a team with technical abilities will complete good quality work on time, while understanding the complexities of engineering projects.

It is important to retain critical staff to achieve good performance in construction projects, especially those with technical skills. Respondent T001 from the large emerging contractors had this to say:

The right remuneration for your employees is important because you don't want to lose your good employees; you need to make sure you are within the prescripts of the law.

Funding and finance factors

Projects need adequate funding to be successfully executed. Both small and large emerging contractor respondents' sentiments, concerning having adequate working capital to perform optimally in construction projects, confirmed the need for sufficient funding as shown in the following response from Respondent X001, from a small emerging contractor:

We cannot execute our plans when we are lacking funds to buy materials and pay our workers. It becomes difficult to pay for operational expenses and this halts projects.

It has been argued in the literature that capital and cashflows are the backbones of all construction companies [24], regardless of whether it is a large construction or small construction company. In this study, respondents from both the large and small emerging contractors expressed funding as a major factor affecting operational performance. Respondent M001 from the large emerging contractor had this to say:

Without adequate funding you cannot execute any construction project, you just have to close the shop.

According to Thwala and Mvumbu, [23], a construction company that cannot generate adequate working capital is unable to meet its financial commitments to fulfil its projects. Revenue is generated when a contractor is executing and completing more contracts successfully, which are then paid for [15]. Eyiah [13] however, describes the capacity of a contractor as having financial capital. Consequently, an emerging contractor cannot perform optimally unless it is funded sufficiently.

It is therefore critical for a contractor to have access to sources of funds. Access to funding has been quoted numerous times in literature as a crucial limitation for emerging contractors operating performance [57]. However, guarantees and funding are not easily accessible from South African banks by emerging contractors. A claim by Thwala and Mvubu [23] was that lack of access to finance during pre-construction disqualifies emerging contractors from meeting performance and guarantee bond requirements, and this leads to incomplete work as a result of cash flow problems and consequently liquidation. Respondent M001 from the small emerging contractors explained their difficulty in getting funds:

Banks are reluctant to deal with emerging contractors, even though they are charging us exorbitant interest rates.

Foxcroft et al. [25] asserted that 75% of bank credit applications by emerging contractors in South Africa were not approved. This suggests that these small emerging contractors are faced with collateral prejudice from the financial organisation, which, according to Olawale and Garwe [26], without finance, small emerging contractors may not survive or grow. In addition, credit is seen to harm small business profit and survival, especially if it comes with high interest [27]. Therefore, accessible credit is a good funding source to address liquidity constraints for emerging contractors, if it is reasonably priced, thereby boosting its performance.

Cash flow management is another crucial matter connected to good operating performance. Respondent B001 from a large emerging contractor says that:

Good cash management is essential since it creates adequate cash for the successful execution of projects.

Poor cash flow management results in inadequate working capital and undermines the sustainability of the construction business. If there is a lack of cash to support a business's day-to-day activities, this could lead to contractors' failure. According to Greyling [58], weak financial and cash flow management has been observed among emerging contractors, affecting the business's ability to work successfully. Poor cash flow management has been cited in other studies as one of the major causes of failure in small businesses [58]. This concurs with Truong-Van Luu et al. [29], whose study of the construction industry in Vietnam found better management of receivable accounts and careful evaluation of the financial capacity of owners were meaningful factors for measuring strategic and operational performance. This indicates the importance of developing a cash flow forecast that indicates the estimated money flow-

ing into and out of the business over some time. Proper cash management is therefore important and includes cash projection and forecasting, thereby ensuring the best use of cash to generate more revenue and profits.

Concerning finance factors, the small emerging contractors alluded to a casual approach when recording their business transactions, for example, Respondent T001 said:

I do not have a full-time accountant who handles my finances and prepares books. I just record and manage books myself, even though I am not a finance expert. I only engage with accounts when I need tax issues done. My accounts are very simple, and I know my finances inside and outside.

According to Eyiah [13], accounting and financial skills assist the construction firm to reach sound financial and economic decisions that lead to improved project results, as well as the best usage of tax and financial benefits. The misconception is that contractors need not be finance experts; however, when operating a business, they need to make vital commercial and financial decisions. While the large emerging contractors employ accountants, the small emerging contractors seldom do. This is confirmed in Coolidge and Ilic's [30] study that small emerging contractors find accountants or professional bookkeepers too costly to employ, and therefore the need for these small emerging contractors to obtain the basic knowledge and skills to guide them in commercial and financial initiatives and decisions.

Respondent V001 said:

Without proper finance skills, many inaccuracies will cause cost overruns, cost delays and time delays.

An obstacle for emerging contractors is cited by Thwala and Phaladi [2] as poor record keeping so business transactions are not recorded by the small emerging contractor. They can then not account for their costs or ascertain whether they are making profits. However, when bookkeeping is done correctly, decision-making is more effective when based on accurate figures. The business is accurately informed in terms of its obligations, such as taxes and levies, and can plan to avoid a lack of compliance and penalties.

Management factors

Proper management is needed to ensure successful project execution. The response from Respondent T001 of the large emerging contractors was:

Normal management factors, like organising, planning, motivating your staff, as well as giving leadership is an important factors to execute a construction project.

In addition, Respondent M001 from the small emerging contractors had this to say:

Manpower and how it is managed is important; unsupervised staff have a problem of absenteeism on Mondays or Fridays around paydays.

This has been argued by Thwala and Phaladi [2], who state that small emerging contractor business failure is mainly caused by a lack of effective management in their early stages of operation, and this is an important factor to ensure success.

Health and safety factors

A construction project's successful operation requires proper health and safety planning to be in place. According to Respondent M001, the sentiments from the small emerging and large contractors are:

You satisfy your customers or clients by delivering safely within the specification.

Respondent V001 from the large contractor company also had this to say:

Having done more than 100 projects since our company started, we have learnt the hard way to respect the health and safety aspects when executing construction projects. We cannot afford to take chances. We have lost millions for lack of compliance, through hefty fines, and you can put your employees at too much unnecessary risk too.

A study carried out by Cheung et al. [19] revealed that there are one of the seven major key performance indicators is health and safety. Also, according to the CIDB [12], project performance can be quantified against the guidelines of health and safety management. According to Said et al. [58], technical management of safety is considered a fundamental component of project management. This means operating performance can not succeed without giving attention to health and safety factors.

Ability to innovate

The small contractors expressed very little need to innovate as most jobs they do, they execute in line with specifications. Respondent M001 said the following:

The construction industry is a late adaptor in terms of innovations and this all has to do with the design stages because, as constructors, we have no room to be innovative, we have to construct what has been tasked to us.

However, the large emerging contractors had a different view of innovation as a critical element for achieving competitive advantage and project efficiency.

Respondent V001's view was:

It is always critical to do things differently, such that projects are finished fast and of the correct quality. You find that on most of our projects, we brainstorm as a team on how we can innovate our processes and you find that after that we save huge costs and manage to streamline certain processes and save time.

This is well supported in the literature and, according to Egbu [35], innovation is described as the technological, marketing, financial and organisational capacity of a company. Innovation enables a company to execute embraced expertise through appropriate management techniques to improve its skills and efficiency [31]. Through innovation, improvement and non-trivial change in a system, product or process become possible [32]. According to Amabile et al. [33], innovation creates successful ideas for execution in an organisation. Therefore, according to Hadjimanolis [34], the extra innovative a company has, the bigger its profit margin, employment growth and its capacity. Similarly, Eaton et al. [31] and Egbu [35], argue that the technological innovations of companies save time and reduce costs, in that way improving performance. In addition, as held by Hitt et al. [36] companies that likely perform better in the long run, invest a great number of resources in innovative competencies.

Pricing factors

In construction projects, it is essential to price correctly. Respondent M001 from a small emerging contractor alluded to this as follows:

...correct pricing is such an important factor because if you price wrongly your Bill of Quantities, this results in significant losses.

Respondent X001 from a small contractor expressed the following:

Proper pricing is important, if you don't price your project well, it is frustrating from day one up until you finish, and you will be stressed.

However, due to their experience, the large contractors did not indicate this as an important factor, despite it being necessary. According to Mohlala [59] the lowest-priced tender is usually used as a benchmark to award pricing points to the other bids. The pricing points, along with the B-BBEE points, are used to calculate the final score. Hence, an important factor for small emerging contractors to win tenders. In totality, it is important to note that besides financial control, sound management consists of alertness to all factors building up a developing business, strategy, marketing and specifically good pricing [51].

Quality products and services

Quality work was a result of having skilled staff, proper planning and well-resourced projects. Respondent S001 from the small contractors had this to say:

Finishing your construction projects with high-quality shows the importance of having skilled personnel to make sure that work is completed at a high standard. Such failure to finish the work with high quality can impact reputational damage and this can hinder future opportunities for construction projects.

Factors affecting the successful project delivery by emerging construction companies in Gauteng

The respondents from the small and large emerging construction companies operating in Gauteng revealed the following factors that are impacting the successful delivery of their project performance:

Project planning factors

When a construction project is properly planned, it is bound to succeed, and Respondent K001 confirmed this by saying,

Proper planning is synonymous with success in construction.

According to Cox et al [37], on-time completion functions as a complete assessment of operating performance in line with planned timelines. Therefore, planning helps to eradicate time overruns and without planning, good quality and costs cannot be achieved. Ling et al. [38] describe quality as the output quality of work done or service rendered to workmanship and technical standards. Quality resembles the standard attained and the such standard is attained with good planning, which does not come without effort. It reflects the extent to which general conditions encourage the achievement of the project's set requisites for workmanship and materials. Therefore, the importance of an emerging contractor is to make sure the project meets the requirements of the undertaken project.

A competent and skilled project team

A competent and skilled project team enables good workmanship in construction projects. Respondent V001 from the large emerging contractor alluded to this in the following statement,

Having a competent project team is essential to the successful delivery of a construction project.

This results in a project being completed timeously and within costs. Human resource is yet another critical element for company success [39]. Armstrong [40] additionally reflects that human resources can be the weaknesses or strengths of a company. Just as physical resources, such as financial capacity, equipment and raw materials can constrain or improve productivity; similarly can human resources achieve the same with skills, experience or training.

Accordingly, skills shortage can connect to the contractors' supervision and experience, which has a great impact on the delivery of a project [41]. Working experience could be a basis for sustainable competitive advantage which leads to superior operating performance for a firm. According to Otim et al. [42], although importance is placed on the knowledge and skills to make sure there is the successful delivery of projects, such knowledge and skills can empower the emerging contractor to operate a business successfully, attain sustained growth and remain competitive. However, demanded skills shortage exists in the construction sector, at both artisan level as well as specialized levels [60] and therefore the need to attract and retain human resources with skills.

The construction industry requires technical competency as the most critical skill to make sure construction projects are effective and of high quality [43]. However, Eyiah [13] argue that the most technically qualified contractors do not necessarily run businesses successfully, excel in the delivery of projects or win the most work. Emerging contractors require a balanced variety of capabilities that consist of business skills, negotiation, sales and marketing. Negotiation skills are vital due to the conditions and terms of contracts that can pose cash flow problems and risks to the contractor's overall project delivery ability profitably and successfully [41]. As held by Eyiah [13], negotiation skills allow the construction firm to attain advantageous concessions that minimise imminent cash flow problems and risks on a project. As a result of negotiation skills, a contractor can avoid litigations, arbitration, adjudications, disputes and conflicts, which are time-consuming and costly [41].

Good workmanship

The quality of products and services a construction project can produce determines how successful a project is delivered. A small emerging Respondent B001 expressed the results of poor workmanship as follows:

Sometimes you see lack of the needed technical competence cost us a lot. An engineer can just come and request that the concrete or plastering be redone, and this cost us dearly as we have to buy more materials and require more time.

According to Miles [17], a project is regarded as successful when the development is completed within set guidelines, on time, and

when the quality is satisfactory to all. Such success is described when considerably improved outcomes than anticipated or are ordinarily attained in terms of security, quality, schedule and cost [44]. Where the workmanship is poor, it then costs the client more to appoint another contractor to rectify the mistakes of the previous contractor, as the work is of such a poor quality that additional funds either need to be spent on repair work or the existing work needs complete redoing [45].

Skilled staff retention

Skilled staff, such as quantity surveyors, architects, and engineers is critical and in short supply, and it is essential to retain and keep staff well motivated. To show the importance of staff retention, Respondent V001 from the large emerging contractors had this to say:

We keep our staff well paid and motivated. We give them holiday breaks, off days and incentives.

However, the small emerging companies had reservations regarding their capacity to pay skilled workers, and Respondent M001 said:

... it's important to employ skilled staff and retain them; otherwise, you will be forced to abort your project, say, if you fail to engage an engineer.

The research by Sweis et al. [46] showed that poor performance by contractors is often due to a deficiency or shortage of technical professionals in their organisations. Croswell and McCutcheon [18] have also acknowledged the lack of technical expertise as a supporting factor to the poor performance of emerging contractors. Higher levels of human resources and strategic planning have an important effect on operational performance, including greater overall efficiency, greater cost-effectiveness and higher productivity [47]. Gratton et al. [48] posit that the motivation and skills of personnel serve to retain, develop and train, improve a firm's competitiveness.

Proper risk management

The need for proper risk management was alluded to in the following remarks from one of the small contractors. Respondent M001 said:

Risk management is critical since anything can go wrong anytime and anywhere.

Whereas a large contractor respondent, Respondent V001, had this to say,

We have ongoing plans that ensure all our projects are guided by proper risk management assessment. There is no way in our organisation a project can commence without a sign-off from our risk management team.

Wong and Thomas [49] stated that high competition, low-profit margins, high risk and the unpredictability in the demand for work make emerging construction susceptible to failure. Management skills involve managing risks, i.e. evaluating, monitoring and identifying the functions or activities of the company, to maximize the firm's opportunities and minimise the firm losses [50].

Factors that lead to failure of project execution by emerging construction companies in Gauteng

The factors attributable to the failure to deliver construction projects as revealed by the respondents are as follows:

Lack of funding

The responses confirmed assertions found in the literature about lack of funding. The most popular reason for construction company failure is inadequate funds as a result of failure to persuade creditors of the presence of liquidity [13]. Jach [51] agrees with the view that even a large and profitable company can be forced into liquidation due to its failure to honour payments or settle creditors' accounts balances, even though the resources are secured into long-term assets. The funding problems highlighted by the respondents from the small emerging companies were included in the following statement by Respondent C001:

The size of our company does not allow us to go to the banks immediately, where you find out that you don't have proper

business plans to take to the bank.

The problem is not the bank, but the small contractors, one of whom, Respondent M001, said:

Banks are unable to fund our projects because of our poor credit management resulting in long unpaid debts.

This adversely affects the small contractor as evidenced in the following statement by yet another small contractor, Respondent G001:

Sometimes we are unable to undertake a project because of failures to provide the guarantees needed before executing a project.

This is exacerbated by the small contractor's lack of financial discipline as revealed by Respondent M001:

Sometimes our company owners pay themselves dividends too early after receiving prepayments before a project has been executed and this impacts negatively how the project is funded.

The respondents from the large emerging companies also showed that funding is a critical factor as noted from the following response by Respondent V001:

We fail mostly on those projects because we don't have sufficient funding.

Additionally, Respondent X001 from a large contractor had this to say:

Long payment cycles affect projects as they are not paid on time and it takes forever to get the project to be paid.

According to Mofokeng [61], financial factors are among the leading causes of company failures. Many emerging contractors struggle to obtain guarantees and performance bonds because of their lack of capital [51]. These small companies also experience difficulty in obtaining credit facilities from suppliers because they are small and lack the credibility that is connected with bigger firms in the industry. Respondent V001 said:

The problem of late payments from the government also affects performance, causing delays. The tenders from the government sometimes don't get paid timeously and this affects us negatively.

This leads to payment of penalties when these projects are delayed.

Lack of project management skills

Sentiments from Respondent V001 from a large contractor were that:

An inability to carry out proper project management of your construction projects is a recipe for disaster.

However, the small contractors showed a casual approach to project management. This was reflected by Respondent M001, a small contractor:

Sometimes we just execute a project without necessarily drafting a programme of work throughout the duration of the project. This sometimes backfires when the project is delayed and you panic and do not know what to review to bring the project on track.

If a project is not properly managed internally, without milestones and proper project management competence, it can be described as conducting a project in an ineffective way, which includes the lack of project environment knowledge, lack of project management skills and lack of leadership skills to attain pre-set objectives [47]. According to Sweis et al. [46], some of the issues that affect contractor performance in the construction sector are unprofessional project planning and scheduling.

These vital project management skills are essential for the successful implementation of every project. It is, therefore, essential that emerging contractors have skilled or experienced project management staff in their organisations for successful operational efficiency and effectiveness. Ling et al. [38] maintain that emerging contractors must target developing project management competence via collaboration management and project planning; project communication management; project scope management; project leader-

ship and human resources management; project quality management; project cost management; project risk management; time management; project work; development activities; strategy; actual market situation; to enhance their operational performance. Operational expertise that involves business skills and project management, such as financial accounting and planning, is key to business success [23]. Therefore, Respondent V001 from the large contractors had this to say:

A lack of project reviews, monitoring and interventions ... it's going to lead to project failure.

Poor general management factors

The small contractors viewed poor general management as one factor leading to failure in construction performance. Respondent M001 from this group had this to say,

Poor managerial skills in the construction industry often result in the manager making bad business decisions concerning profit margins and overheads.

According to Longenecker et al. [62], emerging contractors also fail due to poor management. Mohlala [58] showed that contractors with technical qualifications completed projects more quickly than those without. Wiklund and Sheperd [47] stated that business managers who are educated, to a greater extent grow and manage faster a small business than those with no education [63]. Research conducted by Croswell and McCutcheon [18] highlighted the need for the improvement of technical capacity among small contractors.

Lack of skilled manpower

The use of unskilled labour is one area where construction projects fail to reach the required standards. Respondent L001 from the small contractors had this to say:

We sometimes have insufficient skilled local employees and end up employing immigrants or abandoning projects.

This concurs with a study carried out by Adams [1], which recognised the lack of skilled labour as another main reason for emerging contractor demise in the construction sector. In research examining the mentoring and training of developing contractors in South Africa's Eastern Cape Province, Moss [64] observed that the project management skills levels and literacy of emerging contractors were minimal to a degree that they were unable to comprehend forecasts, reports, status reports and charts. Concerning the lack of skilled personnel, Hanson et al. [20] alluded that in South Africa, contractor performance is affected by contractor incompetence and inadequate workmanship. Similarly, the lack of technically qualified skilful employees was seen to be the originating reason for low productivity in the UK construction sector [66].

Reliance on unreliable material suppliers and sub-contractors

Some contractors and suppliers short-change the contractor by providing sub-standard goods and services, resulting in the project plan being derailed. Because of political interferences, they are forced to partner with local contractors who will undermine quality to increase their margins.

Respondent M001, from the small contractors, stressed the effect of political interference in the following statement:

Political interference is very rife in communities; resulting in the engagement of local sub-contractors who will do shoddy work.

Another small contractor, Respondent T001 had the following view:

Some suppliers will provide poor material standards that impact the quality of workmanship.

The quality performance consists of issues, such as craftsmanship and identification of defects. Quality improvement can minimize costs and resources that should be dedicated to modification, which when decreased increases profitability [38]. Construction work requires, not only product quality control but also control and measure the numerous project stages so that satisfactory end project goals are achieved [66].

Lack of knowledge of regulations

While the large contractors did not express any difficulty in their knowledge of the minimum expectations set within the construction industry, it was the small emerging contractors who expressed great challenges in understanding the requirements relating to minimum wages, employability of immigrants, BBBEE, taxation, pricing, and CIPD grading. Respondent H001 from the small contractors' group had this to say:

Problems to do with knowledge of gazetted labour rates sometimes result in losses, especially when you quote at the wrong rates.

Respondent X001 expressed their struggles concerning BBBEE regulations as follows:

...these BBBEE regulations are not conducive at all....

This agrees with the conclusions from a study by Mahadea and Pillay [67] that states taxation, economy, crime, laws, regulations and competitiveness are major growth-inhibiting factors.

CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

In conclusion, the study found that the factors affecting the operational performance of emerging contractors are project planning; skilled personnel; funding, ability to innovate; quality products and services; pricing; management; remuneration, and health and safety plans. Large contractors and small contractors are both affected by project planning, funding, skilled personnel, good workmanship, skilled staff retention, project management capacity, and proper risk management to perform with success. Contractors operating performance inhibiting factors include lack of funds; lack of skilled personnel; lack of proper project management; unreliable supplier reliance; lack of knowledge of regulations and poor general management leading to failure to produce the effective performance of construction projects.

Therefore, both small and large contractors must retain, develop and attract skilled personnel. It is not easy for small companies to employ skilled staff because of a lack of resources, and therefore the need to outsource critical skills, such as project management and engineering skills that make construction projects attainable. By employing skilled personnel and giving them resources, good quality and workmanship, and accurate pricing is achieved. Both small and large contractors cannot operate effectively without adequate funding. It is even worse for a small contractor to struggle with funding as it has limited access to sources of funds compared to large contractors who can obtain credit from suppliers and banks. Small and large contractors require managers to ensure the project stays on track in terms of health and safety, environment, finance and human resources, and that risk aspects are properly managed for good operational performance. However, the capacity of the contractor determines the depth with which these aspects are covered. Small contractors, because of the level of business, cannot afford to either outsource or access these management skills. Whereas, the success of large contractors lies in the existence of ongoing processes and policies that ensure these functions are implemented at a formal level. Even though projects are guided by well-set specifications, innovation is critical in a construction project's performance. To improve on cost, quality and time, one needs to innovate. To achieve a competitive advantage, a construction company must develop ways of running projects differently from its competitors. A contractor requires local community and political support for successful project execution; however, subcontracting them comes with the risk of substandard material and shoddy work. Community and political interferences can negatively impact the performance of a project.

It is recommended that management and owners of emerging contractors can ensure there is continuous training and development. There is a need to ensure employees are exposed to a system of continuous training and development to avoid the chances of scarce skills. Large contractors have the resources and capacity to allocate budgets that ensure the critical skills are widely available. It is more cost-effective to employ than to outsource, as the level of business increases. While small contractors lack resources and the capacity to employ highly skilled employees, in the long run, the small staff complement must be well-trained and developed to minimise the need to outsource. Emerging contractors must reward employees to avoid losing critical staff. Due to the cyclical nature of construction work, employees should be allowed to do flexible work and have ample time for holidays and breaks during seasons of minimal construction work. Staff should be expertly trained in all aspects to allow for multitasking.

With current technological advancement and the rise of the fourth revolution, emerging contractors cannot afford to ignore innovations and endeavour to develop a learning organisation. Large emerging companies must develop learning organisations that allow their employees to innovate. Such innovation should be led by the need to enhance on cost, time and quality of construction projects. The need to meet competition from the developed countries brings pressure on local emerging contractors to carry out

cost-benefit assessments for innovations, such as 3-D printing within construction work. Innovation should enable effectiveness and efficiency in project execution. As small contractors do not operate in a vacuum and are exposed to technology, they should implement projects in manageable phases to ensure that their processes are improving, in line with current trends. Through innovation improvement and non-trivial change in a system, product or process become possible [32]. According to Amabile et al. [33], innovation creates successful ideas for execution in an organisation.

Stakeholders and policymakers such as government support emerging contractors in funding and training emerging contractors' projects. Due to the significant growth in GDP from emerging contractors, the government should offer them more financial support to alleviate their funding problems, which limits their growth. Banks and finance houses provide credit at punitive interest rates, which makes it uneconomical to borrow funds to finance a construction project. The government may also offer incentives, such as special funding for emerging contractors that deal with public sector projects. Government should also offer basic training for new contractors and small contractors to empower them with skills for improved operational performance in construction projects. Such management training should include areas such as general management, financial management, risk management, general management and health and safety.

This study is limited to large and small emerging contractors operating in Gauteng Province, South Africa. Future studies are recommended to include other emerging contractors in other South African provinces and other developing and developed countries.

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