

Sustainable contractor development: do CEOs/company leaders make a difference?

Kehinde Alade¹, Abimbola Windapo¹ & Nnedinma Umeokafor²

¹University of Cape Town, South Africa, ²Kingston University, UK

Correspondence: Aldkeh001@myuct.ac.za, Abimbola.Windapo@uct.ac.za

Abstract

The construction industry is one of the major contributors to the GDP of many countries. However, just like many other countries, the South African construction industry has been facing challenging times with the decrease in expenditure and investment from private and public clients. This has led to decrease in the industry's GDP and subsequent increase in the number of liquidation and insolvency of construction companies. The purpose of this study is to identify the key leadership and entrepreneurial factors for sustainable construction companies. Semi-structured interviews of higher experienced CEOs/leaders of 11 large construction companies in the Western Cape, South Africa and thematic analysis were adopted. For a broader analysis of the CEOs/leaders, the company's financial performance records of the CEO/company leaders over a five-year period were also obtained. The main findings of study include that successful construction companies were managed by CEO/leaders that possess high entrepreneurial skills, good understanding of construction and maintains positive attitude. However, other non-entrepreneurial factors may also contribute to the success. The study recommends that a larger sample size be used to test the hypothesis proposed by the study that leaders make the difference in the success of construction companies, using a quantitative research approach. Contractors, investors, policymakers, and financial institutions may find this study beneficial.

Keywords: Big contractors, Contractor development, Entrepreneurship, Leadership, Sustainability

Introduction

This study examines the role and importance of the Chief Executive Officer (CEO)/company leadership in the sustainability of construction companies, and sustainable contractor development. Leadership is the process of social influence that employs the tools of management in a manner that yields superior results and attributes causation to individual social actors (Antonakis and Day, 2017; Merritt, 2017; Kruse, 2013). Several scholars have illustrated the power of the CEO/company leadership in driving organisational performance outcomes, submitting that a firm's CEO/company leader is an important member of the firm's dominant coalition, with profound impact on the strategic direction and performance of the firm (Windapo, 2018; Gow, *et al* 2016; Peterson, *et al* 2012). While April and Hill (2000) contend that the CEO/company leader does not matter in driving organisational performance outcomes, there is agreement on the positive role of leadership in improving people,

business and organisations' performance (Windapo, 2018; Carmeli and Edmondson, 2012; Nadkarni and Herrmann, 2010; Bass and Bass, 2009).

The poor performance and failure of construction enterprises have been widely reported in literature. In the UK, Korman and Reina (2018) reported the collapse of Carrillon Plc, the U.K.'s second largest contractor and a major construction service provider. Wong and Ng (2010) provide substantive evidence for business failure of Chinese construction companies based in Hong Kong while in the African and sub-Saharan African context, there are concerns on the demise of construction businesses and poor performance of construction in different regions (Odendaal, 2018; Oyewobi, Windapo and Cattell, 2013; Ntuli and Allopi, 2009).

For example, within the last ten years some contractors such as Filcon Construction (Pty) Limited, Basil Read, Esor and Liviero Group in South Africa have undergone business rescue (MasterBuildersSouthAfrica, 2019) while other large companies such as Murray and Roberts, Neil Muller Construction (NMC) and Group Five, have been sold out. Although the reasons behind the poor performance and failure of construction businesses are many and scholars have divergent views, various researchers have held leadership in construction organisations responsible for its success, or failure. Specifically, some studies argue that leaders have profound impact on the performance of the firm, since they set the tone for the organisation through the vision expressed, decisions made and policies implemented (Mcintyre, 2018; Ofori and Toor, 2012; Ofori, 2008; CIOB, 2008). Leadership tops the change agenda and is the main driver for improvement of construction organisations in Egan (2002) re-thinking construction report. It was also identified as the foremost criterion in the construction excellence model developed by Bassioni *et. al.*, (2005).

Despite the links established between leadership characteristic and company performance by author such as Day and Lord (1988), previous streams of research on leadership in construction have focused mainly on project leadership and leadership in the construction industry as a whole, overlooking its implications for construction business performance (Graham *et al* 2020; Liphadzi *et al* 2015; Ameh and Odusami, 2014; Lloyd-Walker and Walker, 2011; CIOB, 2008; Ofori, 2008). Given the backdrop established so far, the aim of this study is to investigate the role of the CEO/company leadership in the sustainability of construction business organisations in South Africa. This study therefore identifies the key leadership and entrepreneurial factors responsible for the sustainability of large contractors in the Western Cape, South Africa. The paper starts by reviewing relevant literature on leadership, entrepreneurship and sustainable contractor development followed by a presentation of the methods, and findings and discussion. The conclusion and recommendations are the last section.

Literature Review

The Concept of Leadership

Leadership has been examined extensively in the literature (Northhouse, 2018). McManus and Perruci (2019) suggest that leadership as a field of study has expanded dramatically in recent years in more organisations due to its recognized importance in the twenty-first century. *Researchers* have argued whether leadership is an art or science, a process or position, and wondered which style is best in each situation or context. This has brought about several theories, cumbersome definitions, and numerous classifications (Graham *et al* 2020; DePree, 2011; Goleman, 2004). In only the past 50 years, there have been as many as 65 different classifications of leadership dimensions and even the 'over- 90'

variables of leadership dimensions uncovered in a study was still not enough to understand leadership (Sydänmaanlakka, 2003; Winston and Patterson, 2006). Leadership research began empirically by studying leaders and their actions; continued with the incorporation of followers and their relationships with leaders; and more recently has incorporated identity-based, environmental, and systemic considerations (Simmons *et al* 2017). By implication, the leadership characteristics construction must integrate the workers, construction process complexities, agendas/goals/discourse in construction such as sustainable construction and other aspects of the environment in which the industry operate.

The Upper Echelon Leadership Theory

The Upper echelon theory examined the predisposition of executives' characteristics on organisations. They argued that organisations are reflection of top manager's cognitions and values (Hambrick and Mason, 1984). The theory further asserts that organisational outcomes are partially predicted by the managerial background characteristics of the top-level executives. Malik *et al* (2016) held that leaders play a vital role in the success of organisation. Likewise, Pihie *et al* (2011) argued that in organisations, leadership is important for facilitating and monitoring favorable change, cultivating relationships, creating solution to organisational problems, directing human resources towards organisational objectives, aligning organisational functions with the external environment, and in determining directions for organisations, and influencing performance. Day and Lord (1988) revealed that executive leadership could explain as much as 45% of the organisations' performance establishing a strong link between leadership characteristic and company performance.

Leadership, Entrepreneurship, and Sustainable Contractor Development

The leadership process creates uncertainty and change in the organization since it involves various factors such as developing a vision for the organization; aligning people with the vision through communication; and motivating people to action through empowerment and basic need fulfillment (Antonakis and Day, 2017; Bass and Bass, 2009; Kruse, 2013; Goleman, 2004). Evidence of this can be found in Windapo (2018). In addition to the leadership roles of CEO or other senior management positions in companies, they also have entrepreneurship attributes, skills and knowledge that if properly harnessed will have positive implications for the performance of construction companies (Oyewobi et al 2013; Windapo 2018). On other hand, while leadership and entrepreneurship differ, Windapo (2018) shows that entrepreneurs have leadership characteristics where the traits, include responsiveness to criticism and suggestions, and getting along with people. The definition of entrepreneurship supports this. Typically, while the operational diversity of entrepreneurs makes the definition challenging (Windapo 2018), but according to Carland *et al* (1984) in Windapo (2018, operationally, it can be defined as an '...individual person who sets up a business or businesses, taking on financial risk for the principal purposes of profit and growth, who is characterized principally by innovative behavior, and employs strategic management practices in the business'.

Given the uniqueness as well as features of the construction industry, leadership within the context is critical, and it is evident there is a greater need for leadership in construction than arguably any other industry (Ofori and Toor, 2012). Construction is one of the most dynamic and complex industrial environments; it has many stakeholders, processes and disjoints (Wild, 2002). Different professionals and bespoke teams from different backgrounds work simultaneously and temporarily often at dispersed geographical locations usually a distance from the central management each time a new

project is awarded to achieve the same goal (Raiden and Dainty, 2006). This project based and multi-organisational nature of construction affects leadership in its context (Burke and Barron, 2014; Ofori and Toor, 2012; Hillebrandt, 2000). The entrepreneurial attributes and activities of the CEO foster sustainable growth and success of the construction company (Windapo, 2018). Oyewobi *et al* (2013) stated that entrepreneurs in construction have the skill to diversify the company and increase the performance of the construction firm. Diversification is a marketing strategy employed in an operating company that seeks to grow its profits by venturing into providing new products or services to new markets or similar industries (Paulraj and Saravanan, 2012).

Entrepreneurship knowledge and skills can be through formal or informal education, personal history, or experience (Gomezelj and Antoncic, 2008). Lebambo *et al* (2017) stated that establishing the entrepreneurial knowledge an entrepreneur possessed requires identifying the education the entrepreneur acquired or the experiences to which they are exposed. There are also social and non-psychological factors such as training, networks, and family proposed as other important factors that influence performance improvements and entrepreneurial success of leaders (Soriano, 2010). Mumford *et al* (2000) recognized that capabilities such as wisdom and perspective to identify restrictions, 'go outside oneself' develop plans and build support, acquired from experience, influence leader performance. According to Windapo (2018), formal education may not necessarily be a key entrepreneurial factor necessary for individuals desirous of establishing successful companies in construction industry.

Toomer *et al* (2018) are instructive that a key factor for leadership effectiveness includes realistic optimism, psychological resilience and generating momentum. According to Torres *et al* (2012), the advantage for organisational executives comes from reading and responding to signals faster than rivals do, adapting quickly to change and capitalizing on leadership to influence how demand and competition evolve. The company's team will ideally comprise of competent members with enough technical expertise, knowledge, and skills. Having an efficient organizational structure in a company ensures individuals know their roles and responsibilities in a company. The entrepreneurial factors and activities contributing to the sustainable growth and success of a construction company and its strength lies in a methodology that links the concept of entrepreneurship to management strategy and business performance in the construction industry (Windapo, 2018).

Methods

To achieve the research objectives, the study adopted a purposive sampling and qualitative approach where semi-structured interviews of 11 stakeholders in the South African construction industry was conducted. Greenfield and Greener (2016) stated that qualitative research method is appropriate for understanding complex phenomena and providing very detailed descriptions and provides rich-case information which are consistent with the current research. According to Creswell (2015), the fundamental idea of this approach is to let research evolve based on what is learnt from participants in the study. The ethical approval for the research was obtained from the EBE faculty ethics clearance committee and a peer debriefing were conducted on the 4th of July 2019, to ensure that the research instrument was useable.

The interview began on the 15th of August 2019 and concluded on the 14th of February 2020, lasting for a period of 7 months. The average interview duration was 55mins 30 sec and both telephonic and personal means were used as reflected in Table 2. There were questions about the major challenges of the executives and how they have managed their companies over time. Data obtained concentrated

around the objectives of the research although the questions remained open-ended to uncover different perspectives. Data collected was first transcribed using the otter software and was more carefully organised using manual means. Finally, the company leaders were asked to give advice to upcoming leaders to understand what matters to them the most.

As shown in Table 2 below, the samples of this study are Group Chairmen, CEOs, and Managing Directors of large Civil, Building and Geo-technical Engineering Construction Companies in the Western Cape — they are in grades 7-9 category on the construction industry development board (cidb) list of registered contractors (cidb, 2017). The construction companies of the study samples are either affiliated with the Master Builder Association (MBA) or the *South African Forum of Civil Engineering Contractors (SAFCEC)* in the Western Cape Province of South Africa.

The feedback from the pilot improved the interview protocol and helped to focus on the right questions based on the objectives of the research. This contributed to improving the trustworthiness of the research. The characteristics of the respondents shown in the Table 2 helps provide an in-depth understanding of how and where some of the finding emerged, generating confidence and credibility. Further, other company financial records such as revenue and profit over a five-year period was also obtained. The analysis was carried out manually using emerging themes. The emerging themes identified from the ideas and patterns that come up repeatedly from the interview transcripts included: ‘survival mode’, ‘adapting’, ‘some other business’ and are presented as the findings below.

Table 1: Information on interviews and Profile of respondents and their companies

Respondent	Position	Background Discipline	Company Age in years	Years In construction	Years with current company	Years in current position	Present Grade on cidb	Interview means date/duration
A	Managing Director	BSc Civil Eng. & Geo-technical	55	36	29	10	7CE/GT	Telephonic, 14/02/20 38m.36s
C	Managing Director	HNC Construction Supervision	117	40	25	4	9GB/CE	Personal, 15/08/19 79min.56s
D	Managing Director	BSc Civil Engineering	49	23	23	12	9GB/CE	Personal, 20/08/19 49min.03s
E	CEO	BSc Building Mgt.	69	50	50	16	7GB	Personal, 27/08/19 75min.17s
F	CEO	BSc Civil Eng	22	24	22	22	7CE	Personal, 8/10/19,

								30min.38s
G	CEO	BSc Engineering	35	58	35	35	8CE/GT	Personal, 8/10/19
								35min.41s
H	CEO	BSc Ind & Mech Engineering	88	35	33	16	8GB/CE	Personal, 24/10/19
								76min.52s
I	CEO	BSc Quantity Surveying	27	33	27	27	7GB	Personal, 14/11/19
								55min07s
J	Group Chairman	BSc Mechanical Engineering	52	30	27	14	8GB	Personal, 21/01/20
								67min 01s
K	Group Chairman	BSc Qty Survey. & Project Mgt	36	46	36	36	9GB/CE	Telephonic 03/02/20, 29min.35s
X	CEO	Psychology	34 before Liquidation	29	29	11	9GB	Personal, 30/07/19
								33min36s

Findings and Discussion

Profile of the respondents

The over 20 years' experience in construction of each the participants and operation of all the companies provide them with significant experience in the industry, enabling them to provide rich information especially in terms of sustainable construction (Greenfield and Greenfield, 2016). The 4 to 36 years of leadership experience (Table 2), also allow for the level of insight required for this study on leadership in construction.

Family business and or academic background and training

Table 2 shows that most of the respondents have a background discipline in construction and related courses. These have implications for the construction and business skills of respondents and company performance. Some of the respondents added that early experience and a further degree in management and business was also helpful to sharpening their construction and business skills and boosting their performance and subsequently, that of their companies. All these factors appeared to be key requirements to understanding and running a successful the construction business one as reflected in the statements below:

"Starting from beginning, if my father were not a consulting engineer, I could never be a consultant, I was born a contractor. I like doing this work. I like to work with my hands. I matriculated in 1957 and graduated with a BSc Engineering Honors but I later went to school of business, to understand cash flow" Respondent G.

"I studied Industrial and Mechanical Engineering at Stellenbosch University, and I was early exposed to construction because my family had a construction business. If you are going to be thrown into the deep end running a business that has traction, size and scale, I think you need to have studied business to handle that so, I did an MBA" Respondent H.

"I have no formal qualification in the building industry, just from hands-on experience, using entrepreneurship leadership skills, I moved up the company and then, about 14 years ago we cross sorts a little, certain things happened in the marketplace and then I did buy up the balance shares here". Respondent J

However, the deviant sample whose company is now liquidated stated that there was no prior early exposure and training in construction and business as reflected in the statement below.

"I joined the construction industry in 1990 as a training manager, and through that process, I got to know a lot more about the technical detail of the industry. I do not have the practical experience, and I did not train as a construction engineer neither was I a construction manager, I was educated in the field of Industrial psychology and people management". Respondent X

The account of Respondent X does not provide enough evidence to conclude that the lack of early training/education in business or management and/or lack of family background in business impacted on their construction and business skills, boosting their performance and subsequently, that of their companies. However, the evidence in literature elsewhere in this paper suggest that it may have provided Respondent X with additional advantage. The findings in this theme agrees with Lebambo *et al* (2017) and Soriano (2010) that factors such as education, training, experience, and personal history are important influence on the entrepreneurial success of leaders. Also, the findings are in line with extant literature (e.g. Windapo 2018) that shows the little contribution that the nature of education (formal or informal) makes as a key entrepreneurial factor for a successful company in construction industry. However, the extent to which these impact on the success entrepreneurial success of leaders is not covered.

Diversification in and of Business

Further, it emerged from this study that diversification is a key factor for the sustainability of the company of the participants. Almost all the contractors diversified their businesses. This supports the conclusion of Paulraj and Saravanan (2012) and Oyewobi *et al* (2013), that entrepreneurs in construction have the skill to diversify the company and increase the performance of the construction firm. This is reflected in some of the statements below.

"Our decision to get involved in development work, which effectively gives us an opportunity to procure work for the construction companies, has been a change of direction" Respondent C

"In this climate in South Africa, there is an element of being in survival mode and I am not sure we are getting along in terms of our mission, we have sort of moved away. I would say one of

the other things we have done is to look to tomorrow's business in terms of starting a property company” Respondent J

“The answer is that the downturn and deterioration has been so sudden that any changes you have to make have got to be dramatic, and we have to be looking for new areas” Respondent G

“One has to constantly adapt based on government's needs and expectations. So probably one of the things that we have had to come to terms with is that the bulk infrastructure in this country is now fairly-well established. Now, a lot more focus is on rehabilitation of roads, and not these big, multi-million cubic meters to be shifted and new developments, but it was more a matter of what is basically what now needs to be upgraded and maintained. I think that has been one of the big shifts” Respondent K

However, the deviant sample acknowledged that diversifying the business was not helpful to the business because the timing of the acquisition was wrong. This respondent noted that not reacting quickly to the market, was the worst decision by the company leadership which supports the assertion of Torres *et al* (2012).

“The decision in 2008 was how we are going to grow the business. And at that stage, the best decision was that we need to grow the business organically. We were not going to grow the business through acquisitions. But in many respects, the decision that we took after was probably a bad decision. We acquired a civils construction business and at that stage there was not a lot of work around. So, when we decided the government was going to spend R800 billion rand on infrastructure, we went and made our decision based on that and then it never materialized.” Respondent X

The implications of this include that while diversification of and in business may contribute to company sustainability, other factors such as its timing, the scope, and other factors account for the success. While Respondent X' company failed in the diversification, there is little if not no evidence to logically conclude that the lack of construction training was the causal factor but there is evidence of the role of leadership in this failure. However, given that the role of knowledge and education in entrepreneurship and leadership established in literature elsewhere in this paper, it can be argued that this may have played a key role in the failure of the diversification of or in the business. Further, the size of the organisation (e.g. large, medium, and small) which determine the resources available to them may have implications for the level and attention of the diversification and the performance.

Survival Mode and Resilience

Another significant finding from this study is that while most of the respondents maintained that the construction industry in South Africa is in a survival mode, their disposition revealed a positive attitude to overcome the challenges as reflected in the following statements:

“A lot of construction companies in South Africa are working on survival mechanism, and it has become a scary process. All those big construction companies that we looked up to are the ones that are getting out of business now. So, things are changing fast and it is a moving train all the time, but we are actually going with the flow”. Respondent A

The challenges in the country now is the economy and the construction industry, which has been through the worst time to my knowledge in probably forty to fifty years. I have never seen that in these 44 years of my working career. So probably one of the things that we have had to come to terms with is how are we going to become specialists” Respondent K

“I really think that from construction point of view, you must be adaptive. To me, adapting to our circumstances is probably one of our strongest point” Respondent J

This supports the assertion of Toomer et al (2018) that psychological resilience and generating momentum are important for leadership effectiveness. The idea of not giving up on a mission and leader rejuvenating capabilities of ‘self’ and that of the team in order to be continuously successful comes to bear here. However, the deviant sample expressed some regrets about the decision to grow during the challenging times. It is also noteworthy that since the respondent having quit the business already resilience is not reflected. The respondent stated that:

“I think there was an element that we were growing too fast. So, we should not have. Probably the biggest mistake was that we as management, did not react quickly. We should have reduced the size of the business a lot quicker. We should have sold off our civil engineering business”. Respondent

Other Remarks

While evidence in literature and the findings of the current study point to the contributions of entrepreneurial factors to the success of companies in the construction industry, the strategies and procedures of connecting these factors to the organizational goals and management strategies remain one of the key determinants of the performance of the organization (Windapo 2018). The implications of this include the need for organisations to ensure synergy between organisational goals and management strategies and the entrepreneurial factors to achieve sustained organisational performance.

Conclusion and Recommendations

This study examined the leadership and entrepreneurial factors that impacts sustainable contractor development. Through the analysis of findings of this study, it was evident that leadership and entrepreneurial abilities of the upper echelons impact the sustainable development of construction companies, just as the diversification of business and the background experience. This study recommends early exposure to construction experience and business skills for contractor development. Further, having a positive attitude towards the industry will be helpful to developing sustainably. Contractor development programmes can be used as a mechanism in this regard. The study highlights the key entrepreneurial factors that contribute to the development and sustainability of contractors which can be and has been easily over-looked. Contractors, investors, policymakers, and financial institutions may find this beneficial. As the study was limited to large contractors, not all the findings maybe applicable to medium and small-scale companies hence a study that will draw on their experiences and views is recommended. This study was conducted in the Western Cape province of South Africa and used a few sample sizes. Further research (e.g. a survey) should be extended to other provinces, using a larger sample size for generalizability of results. Similar studies are also encouraged in other countries.

Acknowledgements

Authors would like to thank the Master Builder Association (MBA) Western Cape and the *South African Forum of Civil Engineering Contractors (SAFCEC)*, Western Cape for their recommendation which allowed access to the study sample. Further, this work was supported by NRF (Grant Number-120843), TETFUND and UCT WUN-ARUA. Opinions expressed and conclusions arrived at, are those of the authors and are not necessarily to be attributed to the NRF, TETFUND or UCT WUN-ARUA.

References

- Ameh, O. J. and Odusami, K., 2014. The leadership profile of Nigerian construction project managers. *Scientia Iranica. Transaction A, Civil Engineering*, 21(4), p.1241.
- Antonakis, J. and Day, D. V., 2017. *The nature of leadership*. Los Angeles: Sage publications.
- April, K. A. and Hill, S., 2000. The uncertainty and ambiguity of leadership in the 21st century. *South African Journal of Business Management*, 31(2), pp.45-52.
- Bass, B. M. and Bass, R., 2009. *The Bass handbook of leadership: Theory, research, and managerial Applications*. Simon and Schuster.
- Bassioni, H. A., Price, A. D. and Hassan, T. M., 2005. Building a conceptual framework for measuring business performance in construction: an empirical evaluation. *Construction Management and Economics*, 23(5), pp.495- 507.
- Burke, R. and Barron, S., 2014. *Project management leadership: building creative teams*. John Wiley & Sons.
- Carmeli, A., Tishler, A. and Edmondson, A., 2012. CEO relational leadership and strategic decision quality in top management teams: The role of team trust and learning from failure. *Strategic Organization*, 10(1), pp.31-54.
- Carland, J.W., Hoy, F., Boulton, W.R. and Carland, J.C., 1984. Differentiating Entrepreneurs from Small Business Owners: A Conceptualization. *Academy of Management Review*, 9, pp.354–359.
- Cidb, 2017. *comprehensive guide to contractor registration*. Pretoria.
- CIOB, 2008. *Leadership in the Construction industry Survey*. [pdf] Available at: <https://www.ciob.org/sites/default/files/CIOB%20research%20-%20Leadership%20in%20the%20Construction%20Industry%202008.pdf> {Accessed on 20 August 2020}.
- Creswell, J. W., 2015. *A concise introduction to mixed methods research*. SAGE publications.
- Day, D. V. and Lord, R. G., 1988. Executive leadership and organizational performance: Suggestions for a new theory and methodology. *Journal of Management*, 14(3), pp. 453-464.
- Depree, M., 2011. *Leadership is an art*. New York, Currency.
- Egan., 2002. *RethinkingConstruction*, prepared for the Deputy Prime Minister. [pdf] Available at: http://constructingexcellence.org.uk/wpcontent/uploads/2014/10/rethinking_construction_report.pdf [Accessed on 20 September 2019].
- Goleman, D., 2004. What makes a leader? *Harvard business review*, 82(1), pp.82-91.
- Gomezelj, D. and Antončič, B., 2008. Critical entrepreneur knowledge dimensions for the SME performance. *Industrial Management & Data Systems*, 108(9), pp.1182-1199.
- Gow, I. D., Kaplan, S. N., Larcker, D. F. and Zakolyukina, A. A., 2016. *CEO personality and firm policies*. Cambridge: National Bureau of Economic Research. [online] Available at: <http://www.nber.org/papers/w22435>
- Graham, P., Nikolova, N. and Sankaran, S., 2020. *Tension between Leadership Archetypes. Systematic Review to Inform Construction Research and Practice*. *Journal of Management in Engineering*, 36(1),
- Greenfield, T. and Greener, S., 2016. *Research methods for postgraduates*. John Wiley & Sons.

- Hambrick, D. C. and Mason, P. A., 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, 9(2), pp.193-206.
- Hillebrandt, P. M., 2000. *Economic Theory and the Construction Industry*. Basingstoke: 2nd Edition. Macmillan.
- Korman, R. and Reina, P., 2018. Carrillon's collapse: When they miss the biggest risk. *Engineering News-Record*. [pdf] Available at: <http://ENR-20180305-CARILLION.pdf>
- Kruse, K., 2013. What is leadership. *Forbes Magazine*, 3.
- Lebambo, M., Mmako, N., Shambare, R., Radipere, S., Sambo, W. and Van den Berg, A., 2017. *Entrepreneurial Skills*. Pretoria: Van Schaik Publishers.
- Liphadzi, M., Aigbavboa, C. and Thwala, W., 2015. Relationship between leadership styles and project success in the South Africa construction industry. *Procedia Engineering*, 123, pp.284-290.
- Lloyd-Walker, B. and Walker, D., 2011. Authentic leadership for 21st century project delivery. *International Journal of Project Management*, 29(4), pp.383-395.
- International Journal of Management, Business, and Administration, 14(1), pp.1-4.
- Malik, S., Saleem M. and Naeem, R., 2016. Effect of leadership styles on organizational citizenship behaviour in employees of telecom sector in Pakistan. *Pakistan Economic and Social Review*, 54, pp.385-406.
- MasterBuildersSouthAfrica, 2019. Master Builders South Africa calls for urgent government intervention to save the Construction Industry.
- Mcintyre, F., 2018. Carrillion collapse was a leadership failure says Balfour's Quinn. *New Civil Engineer* news. [online] Avail;able at: <https://www.newcivilengineer.com/archive/carillion-collapse-was-a-leadership-failure-says-balfours-quinn-15-03-2018/>
- McManus, R. M. and Perruci, G., 2019. *Understanding leadership: An arts and humanities perspective*. Routledge: oxfordshire
- Merritt, E., 2017. *Leadership and strategy: understanding, planning and implementing*. Day Press
- Mumford, M. D., Zaccaro, S. J., Harding, F. D., Jacobs, T. O. and Fleishman, E. A., 2000. Leadership skills for a changing world: Solving complex social problems. *The leadership quarterly*, 11(1), pp.11-35.
- Nadkarni, S. and Herrmann, P., 2010. CEO personality, strategic flexibility, and firm performance: The case of the Indian business process outsourcing industry. *Academy of Management Journal*, 53(5), p.1050.
- Northouse, P. G., 2018. *Leadership: Theory and practice*. Sage publications: London
- Ntuli, B. and Allopi, D., 2009. Factors associated with insolvencies amongst civil engineering construction firms in Kwazulu-Natal, South Africa. *Proceedings of the 28th Southern African Transport Conference (SATC 2009)*.
- Odendaal, N., 2018. Listed contractors feeling the pinch as construction sector dynamics change. *Engineering News*. [online] Available at: https://www.engineeringnews.co.za/article/listed-contractors-feeling-the-pinch-as-construction-sector-dynamics-change-2018-07-18/rep_id:4136
- Ofori, G., 2008. Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management*, 26(6), pp.620-630.
- Ofori, G. and Toor, S.-u.-R., 2012. Leadership and Construction Industry Development in Developing Countries. *Journal of Construction in Developing Countries*, 17.
- Oyewobi, L., Windapo, A. and Cattell, K., 2013. Impact of business diversification on South African construction companies' corporate performance. *Journal of Financial Management of Property and Construction*, 18(2), pp.110-127.
- Paulraj, K. and Saravanan., 2012. Diversification-strategies for managing a business. *International*

Journal of Multidisciplinary Management studies, 2(5 May 2012).

Pihie, Z. A. L., Sadeghi, A. and Elias, H., 2011. Analysis of head of departments leadership styles: Implication for improving research university management practices. *Procedia-Social and Behavioral Sciences*, 29, pp.1081-1090.

Peterson, S. J., Galvin, B. M. and Lange, D., 2012. CEO servant leadership: Exploring executive characteristics and firm performance. *Personnel Psychology*, 65(3), pp.565-596.

Raidén, A. B. and Dainty, A. R., 2006. Human resource development in construction organisations: An

Example of a “chaordic” learning organisation? *The learning organization*, 13(1), pp.63-79.

Simmons, D. R., Clegorne, N. A. and Woods-Wells, T., 2017. Leadership paradigms in construction: Critical review to inform research and practice. *Journal of Management in Engineering*, 33(4),

Soriano, D.R., Modelling the enterprising character of European firms. *Eur. Bus. Rev.* 2003, 15, 29–37.

Sydänmaanlakka, P., 2003. Intelligent leadership and leadership competencies: developing a Leadership framework for intelligent organizations. Ph.D. theses, Helsinki University of Technology.

Torres, R., Reeves, M. and Love, C., 2012. Adaptive leadership. *Own the future: 50 ways to win.* Boston Consulting Group, pp.33-39.

Toomer, J., Caldwell, C., Weitzenkorn, S. and Clark, C., 2018. The catalyst effect: 12 skills and behaviours to boost your impact and elevate team performance. Emerald Publishing Limited.

Wild, A., 2002. The unmanageability of construction and the theoretical psycho-social dynamics of projects. *Engineering Construction and Architectural Management*, 9(4), pp.345-351.

Windapo, A., 2018. Entrepreneurial Factors Affecting the Sustainable Growth and Success of a South African Construction Company. *Sustainability*, 10(4), p.1276

Winston, B. E. and Patterson, K., 2006. An integrative definition of leadership. *International journal of leadership studies*, 1(2), pp.6-66.

Wong, J. M. and Ng, T., 2010. Company failure in the construction industry: A critical review and a future research agenda. FIG International Congress.