TAKING A LEADERSHIP EFFECTIVENESS PERSPECTIVE IN CONSTRUCTION PROJECTS

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ABSTRACT

Background: Leadership effectiveness is desired by the participants of this study who are the leaders of a construction project in Nigeria. They are mandated to work in an entire process - from conception to selling of residential houses. This has been a challenge to the organisation that comes from multiple challenges normally found in developing countries.

Objective: A learning objective is sought for technical professionals that rely on single answer decision making to a multi-perspective solution consideration. At the centre of this perspective is taking a collaborative approach with the aim of creating value and effective decision making.

Methods: The action research methodology was used where a group of concerned professionals as participants come together to work on organisational challenges. An appreciative inquiry undertone is used to provide positive energy to the participants that has a social constructionist approach to decision making.

Results: The collaborative approach to leadership in addition to the value creation and effective decision making led to further cycles of improvement. In-depth analyses of these processes led to findings that these leaders must also take an integrative, questioning and development and learning approach to leadership effectiveness.

Conclusion: Organisational change takes time to develop and seen on this research. For instance, the time take to understand that an integrative approach, again there must be a kind of questioning to be learned that involves revealing ones closely held assumptions and lastly leadership as a process requires continuous development and is to be seen as a journey rather than be seen as a finishing line.

Keywords: Construction, Project Management, Collaboration, Value creation, Decision making, Leadership effectiveness, Action Research

INTRODUCTION

Leadership effectiveness is essential in directing the affairs of an organisation. The statement becomes more so when the organisation is situated in Abuja the Nigerian capital. Nigeria is facing challenging times firstly from just coming out of recession and secondly the government was just stabilizing after a series of changes in economic policies. That is the case of this construction project organisation where its leaders as participants of this research decided to take a leadership effectiveness perspective of improving their situation. The main importance of the research is to look inwards into taking suitable action so that it can enhance its effectiveness. Leadership effectiveness of the organisation is demonstrated through delivering its mandate of designing, building and selling houses in a suitable location. Hence the main contribution of this work is taking the time to learn new ways of improving the situation for the organisation. In other words, using the difficult times in the business environment and develop a learning culture as the main strategy of improving effectiveness. More specifically, the learning involved knowing what the situation is and how to come about it (Tenkasi, 2004). For instance, the learning came from findings that involved taking an integrative approach, a questioning approach and a development and learning approach to improving leadership effectiveness.
The leadership of the project organisation estimated the project at Ten million United States Dollar ($10 m) for the development of seventy-one houses that included primary and secondary infrastructure. Of the seventy-one houses, fifty-four were for sale while the remaining seventeen belong to the landowners as their equity share. The leaders of the organisation planned to deliver in thirty-five months but due to the various challenges, there was an extension of eighteen months.

The researcher as a consultant has been working with the project leader before the project came up and hence has a working understanding with the leadership team. The team is made up of the project leader, engineer, surveyor and the researcher as a leadership consultant. Other contributors to the project were present such as architects, builders, marketing and legal professionals but on a temporary basis. The main responsibility to deliver the project lies solely on the leadership team.

The team had from previous learning set participations uncovered three areas that were hindering the delivery of the project. These were a lack of collaboration that has led to little or no value creation which has resulted in deficiencies in effective strategic decision making. The lack of collaboration was identified from a continuous loss of business. Gray described collaboration as the process through which different parties use their differences creatively to arrive at better situations. Again there was a lack of value creation; a situation where value could be created without the deployment of money but through collaborative processes, for instance, from good stakeholder management (Freeman, 2010; Freeman, 1984). The identification of the organisational issues culminated into a lack of effective decision making - that is the leaders have not been reflecting sufficiently in their activities. The combination of these variables resulted in a lack of effectiveness. Effectiveness in this sense is absent as demonstrated by missing the delivery target. Nevertheless other construction organisations are doing better while still facing the same external business environment in Abuja, Nigeria. The indication is that these organisations are doing something very useful given the current circumstances. The main reason why the leaders in this organisation decided to work on their activities and the main action is in rethinking their leadership approach from an individualistic to a collaborative approach (Raelin, 2015).

The organisational issues have combined to form the organisational problem and hence the response came from the main research question of “How to improve leadership effectiveness in a construction project organisation?

The objectives of the research were: developing mutual collaborative behaviour, value creation from analogical reasoning and effective decision making from critical reflection. These are qualitative elements of leadership and differ from the quantitative backgrounds of the participants.

The brief introduction to this paper is followed by a literature review that has two aims. The first is in bringing enlightenment on the organisational problem and secondly, in developing a solution procedure that may lead to the development of a learning organisational culture. The methodology is then described: this involves the research design, data collection and analysis. The findings are presented together with the discussion of results before finally presenting the conclusion.

**LITERATURE REVIEW**

**The Leadership Perspective**

The leadership perspective in this study is collaborative leadership. The reason is that lack of collaboration is at the centre of the organisational problem although it is not a solitary issue. Several authors have identified collaboration as a way of improving leadership activities. For instance, in taking a broad leadership view in the construction sector of developing countries (Ofori, 2012), general leadership collaboration (Raelin, 2003; Grint,
2005) and skills required for behaviour that brings effective project management (Fisher, 2011). Ofori and Toor investigated leadership development in the construction industry in developing countries. They used a quantitative approach to study a large sample with the development of a framework directed at institutions such as government and education. Here the leaders use a qualitative approach in a single case. The effort is directed at developing actionable knowledge for the leadership of a particular organisation.

Actionable knowledge aims to bring a solution procedure to a problem that is complex and does not have a single answer (Coghlan, 2010). Similarly, the aim to collaborate is messy and requires the development of programmed knowledge in addition to questioning insight also called action learning (Pedler, 2008; Marquardt, 2007). Raelin developed leaderful practice that has four tenets of being concurrent, collective, collaborative and compassionate. The focus here is on collaboration because it is the focus of this research and utilizes the processes of action learning and although it is not action research there are similarities and differences (Rigg, 2016).

Gray defines collaboration as the process through which parties who see different aspects of a problem can constructively manage their differences and search for solutions that go beyond their limited vision of what is possible. The definition perfectly suits the organisational situation as collaboration (the first issue) is necessary to deal with the second issue of value creation between opposing parties – for instance, in negotiations. Furthermore, the definition suits the third issue of making effective decisions after useful collaboration that has brought an avenue for value creation.

**Housing Construction Project Management in Nigeria**

Project management is about meeting costs, time and quality (Chitkara, 2009) or the application of tools and techniques to achieve set requirements (PMI, 2013). In this case, project management is about the complete development and sale of fifty-four houses. The housing deficit in Nigeria is between seventeen and twenty-three million houses in a population of over one hundred and seventy million people; this is with the housing construction sector contributing just 8% as opposed to between 30% - 70% of GDP in developed countries (Kelly, 2015). The requirement for housing in especially the new capital Abuja cannot be overemphasized.

While this research was going on, the leaders of this project were facing a construction sector that is down as demonstrated even in more economically dynamic sectors like government, finance, trade, manufacturing and transport (RTC, 2017). The reason behind the slowing down is probably from a country in recession (Mitchell, 2016). The mainstay of the Nigerian economy is Oil and Gas and has seen its prices go down by sixty-per cent. Again the Central Bank has withdrawn all its money from commercial banks into a special account called a Treasury Single Account (Adeolu, 2015). From these causes and others, the exchange rate for the Nigerian currency (the Nigerian Naira) has lost value to the United States dollar. The loss in value is from $1 to N176 in 2014 to $1 to N480 in 2016. The resultant effect has affected the delivery of the project as sixty per cent of building materials are imported using the United States dollar (Okeke, 2016).

On a broader view, there have been existing challenges to the construction sector in Nigeria. For instance, lack of funding and improper project appraisal (Okpala, 1991); additional costs from time extensions (Aibinu, 2002); lack of sufficient qualifications and experience (Odusami, 2003) and a general lack of financial health of construction project organisations (Arditi, 2000).

Nigeria is multicultural with more than two hundred and fifty ethnic groups (Zagorsek, 2004) and a population of over one hundred and seventy million people survives on scarce resources (Kistruck, 2016). The multiculturalism and competition are even more demonstrated in the Nigerian capital – Abuja, where most of the ethnic groups and the
nation’s resources are unified and connected in one place. There is then an implication not only for the project organisation but across all organisations. Hofstede, Hofstede and Minkov (Hofstede, 2010) present their findings of the Nigerian culture as mid-way between individualism and collectivism; an indicator of measuring the power-distance index. The leaders of the organisation have an eye on the Nigerian and organisational culture since the focus of the research belongs to the applied behavioural sciences.

**Leadership Effectiveness in the Construction Project**

According to Manning & Curtis (Manning, 2012), leadership effectiveness does not have a standard formula because it is an art and therefore requires more skill than knowledge. Conversely, research is mainly to advance knowledge in not only knowing what to do but how to do it (Tenkasi, 2004). From observation, the organisation is efficiently run from the judicial use of available resources. For instance, from being a lean organisation, efficient procurement system and work/unit discounts. What is required is effectiveness - and that is to demonstrate more leadership as contrasted to management that is more towards control. Leadership and management are similar and different (Toor, 2008; Bandiera, 2017). Both are useful to organisations although research evidence shows that managers are less effective than leaders; with the explanation that managers are more operational and hands-on while leaders are more strategic and visionary that is higher-level (Bandiera, 2017). It is this higher level that brought about thinking and actions that combine to form the leadership effectiveness perspective of this study. The combination is made up of collaboration, value creation and effective decision making. The three areas are the objectives of the study that inform the objective research questions.

**Mutual Collaborative Behaviour**

Collaboration in this work is understood from Grays definition of collaboration. Embedded in collaboration are personal traits that are used to manage conflict (Raelin, 2003). The management is about achieving high assertiveness and cooperation or what he calls mutual collaborative behaviour. Others are low cooperation and assertiveness or avoidance; low cooperation-high assertiveness or competition; low assertiveness- high cooperation or accommodation; and midway assertiveness and cooperation or compromising behaviour. The understanding and application of knowledge of these traits bring proper management that contributes to conflict management and more importantly, value creation or the second objective of the study. However, before then is the first objective question of - How can collaboration be used constructively to improve leadership effectiveness?.

**Value Creation from Analogical Reasoning**

The second objective is an extension of the first objective. The main benefit of mutual collaborative behaviour is to provide win-win for both parties. The win-win is when stakeholders of an organisation come together to create value (Freeman, 2010). The highlight of the value creation strategy is the creation of value without using either economic or physical strength (Malhotra, 2016). Central to this approach is thinking and acting in an environment with scarce resources. As Shen and Lai postulate, creativity and creative thinking come from analogy. Analogy or analogical reasoning is the process of drawing ideas from previous instances and mapping it with current situations for the achievement of understanding and resolution (Gick, 1980). However, the mapping is done intentionally and with bouts of critical reflection before application of the analogy (Gavetti, 2005). With this thinking in mind, the second objective question was - How can analogical reasoning be used towards value creation?.
Effective Decision Making From Critical Reflection

The third objective is the culmination of leaders’ activities and combines the first and second objectives. Decision making is an important activity for leaders irrespective of the level of analysis; in other words, from either a micro or macro approach (Geraldi, 2018). The focus in this objective is for leaders to look at their personal and group biases that come from bad assumptions and resultant ineffective decision making (Bazerman, 2012). Kahneman criticizes making decisions that are informed from previous experience; mainly from the inconsistency displayed and is, unfortunately, a characteristic of humans. Mitigating this adverse effect is through critical reflection, where assumptions are brought out and publicly debated before making important decisions (Raelin, 2007). Critical reflection draws out tacit information (Mintzberg, 2004) even though it is difficult to practice (Rigg, 2008) and earn (Russell, 2006). The challenge is to overcome this difficulty and therefore, the last objective research question was - How can leadership effectively utilise critical reflection towards effective strategic decision making?

METHODOLOGY

Methods

The main aim of the research was to rethink the leadership approach (Raelin, 2015); from an individualistic to a collaborative approach. The process is desired to improve the thinking and action of participants by working together on the organisational problem. Central to the approach is the quest for learning, action and research; before this process is the underpinning philosophy which shows the leaning towards relativist ontology and social constructionist epistemology. Why? As demonstrated the knowledge to be created is collaboratively developed and applied. As earlier discussed, the problematic leadership effectiveness does not have a single answer as in realist ontology and a positivist epistemology (Johnson, 2000).

The importance of the philosophical position of research guides the methodology that is a single case of developing leadership effectiveness. The activities involve the participants that are the leaders of the organisation and after looking outward to the external challenge now look inward in working on themselves. The working on themselves entails leadership by doing and suits the activities of action research through constructing, planning, taking action and evaluating the action in a cyclic manner (Coghlan, 2010).

There are several types of action research activities; for instance, the action learning used to problematise the organisational challenge. Here the action research borrows from another type of action research – appreciative inquiry (Anderson, 2015). The appreciative inquiry is a method that uses the positive elements in situations and builds on them (Cooperrider, 2005). For instance, the organisation is already being run efficiently, what is required is effectiveness that results in project delivery. The quest to take a positive approach is to motivate the participants that are in a tense period of not meeting the organisational target. In such situations, there are possibilities of resistance (Ford, 2010) and defensive routines (Argyris, 1996). In such circumstances, Boyatzis, et al., suggest focusing on the positive emotional attractor of hope, collective strengths and future possibilities rather than being consumed by the negative emotional attractor that highlights problems, fear and weaknesses. In the same line of thinking, Hayek supports using only a positive approach so that a perspective can be taken to understand a situation.

The participants agreed to participate in this mode of research which was conducted after a rigorous ethical review process approved by an institutional review team. Out of this, the interview questions were designed to connect the objective questions into appreciative
interview questions that highlight a cyclic progression. Table 1 highlights this connection and only shows the interviews in the first cycle. There were three cycles of interviews that started with a closed and structured approach and ended with the open-ended approach (Punch, 2006). The aim was to explore the challenge from the organisational problem and then freedom towards new insights.

The interview questions were discussed with the three participants of the study. There were three cycles of interviewing each lasting about sixty minutes with each participant; and each participant had three rounds of interview each a month apart. These interviews represent the action inquiry cycles that serve both as an intervention tool for the organisation and for data generation (Huxham, 2003).

Table 1

<table>
<thead>
<tr>
<th>Research Objective Question</th>
<th>Interview question</th>
<th>Interview Sub-questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>How can collaboration be used to constructively improve leadership?</td>
<td>Describe a high-point when you engaged in mutual collaborative behaviour?</td>
<td>- Is it necessary to rethink leadership in this way?</td>
</tr>
<tr>
<td>How can analogical reasoning be used towards value creation?</td>
<td>Describe a high-point where analogical reasoning was used to create value with stakeholders?</td>
<td>- Do you see this as necessary to improve effectiveness?</td>
</tr>
<tr>
<td>How can leadership effectively utilise critical reflection towards effective decision making?</td>
<td>Describe a high-point where critical reflection was used in making a very good decision?</td>
<td>- How do you see critical reflection to mitigate biases?</td>
</tr>
</tbody>
</table>

Analytical Strategy

The primary source of data was the semi-structured interviews and more inherently observations on the developing situation. This qualitative research is interpretive and combines the issues that come along in organisation studies. These studies use multi paradigms where various subjects are connected. For instance, history, public policy, economics, sociology, psychology all coming together to work on direct business areas like finance and accounting or marketing and sales (Buchanan, 2007). As a result, a kind of model is used to understand and therefore to act on areas of concern. The understanding is achieved through argumentation; where a claim is made that is backed up by a logical reason and suitable evidence to warrant the claims made. This is in addition to acknowledging that there are alternatives and responding to them appropriately (Booth, 2016).

From the discussion provided above the analytical strategy was developed from two sources that are firstly, discussing and analysing the action inquiry phase and secondly, in using a Template analysis to ensure sufficient engagement with the data. The action inquiry consists of the three cycles and was done collectively with the participants while the template analysis was done individually by the researcher. Additionally, the two-stage analyses had the advantage of aligning the findings of the two analyses methods that also serve credibility triangulation (Stiles, 1993). Triangulation has implications for practitioners from the way it reveals new phenomena in real life situations and for academics as a way of diversifying research designs (Joslin, 2016).

FINDINGS & DISCUSSION

Action Inquiry
The three action research cycles were designed to demonstrate progressiveness in an inquiry. The cycles demonstrated the way an organisational challenge was defined, the actions taken, the outcomes and what was done about the outcomes. The process is a mapping with Coghlan and Brannicks’ [10] cycle of the construction, planning, taking action and evaluation or what Greenwood and Levin describe as the action research cogenerative model. The cogenerative model involves joint problem definition, communication, mutual reflection, learning and problem resolution through action. The first cycle was called appreciating leadership effectiveness and as the name implies was about taking an appreciative approach to the organisational problem; this is both from taking a positive approach to problem resolution and secondly from appreciating the action research process itself.

The second cycle was called developing leadership effectiveness. The cycle involved the structuring of the questions and loosened up to provide firstly, a further exploration beyond structuring and secondly, to develop proficiency of handling the questioning of assumptions that brings uneasiness. More specifically, the process demanded to operate within the ethical boundaries of research - for instance, avoiding putting the participants on the defensive (Argyris, 1996) and ensuring a suitable engagement that allows for the questioning of assumptions that led to effective decision making.

The third cycle was called evolving leadership effectiveness. Action research is a dynamic process and is continuously dynamic. Why? The continuous questioning from both the researcher and the participants takes away the focus of the research to areas that were presumably unconnected to the research. While not dismissing these new areas, the insight revealed that with a suitable questioning approach useful information is gathered that can be used practically in real life – this is discussed further in the discussion section. The three cycles are demonstrated in figures one, two and three depicting what happened in the action research cycles.

**FIGURE 1**

**THE ARC 1 – APPRECIATING LEADERSHIP EFFECTIVENESS**

The first action research cycle depicted the early stages of the intervention. The participants were engaged in discussing the first interview questions centrally considering the three objectives of the study. There was enlightenment on using mutual collaboration, value creation and effective decision making. More closely, there was a new understanding of personal traits, thinking and using analogy or experience to create value in addition to the using the critical reflection to filter out personal and group biases towards making effective decisions. These activities served both for data generation and for improvement in thinking and actions for the participants.
FIGURE 2
THE ARC 2 – DEVELOPING LEADERSHIP EFFECTIVENESS

The second cycle went further into the inquiry. There were divergent reactions in this cycle. For instance, the observance of the non-linear behaviour of the process; these include organisational politics and power and ideology. While these were embedded in the system, there wasn’t further exploration to the point that the participants felt unease, a major reason for this avoidance is from the ethical consideration of the study. A point to note is that there were other areas that came up not directly from the interview questions; for instance, the differentiation between when to make individual and fast operational decisions or when to be more collaborative and analytic in making strategic decisions.

FIGURE 3
THE ARC 3 – THE EVOLVING LEADERSHIP EFFECTIVENESS

The final cycle indicated that action research is a continuously evolving process. There was deeper understanding between members of the leadership such as in complementing each other. The most important insight was in the development of a permanent attitude to inquiry.

In using action research, there were many challenges that came up that required attention both in process and content. There were real-time social, technical, behavioural, cultural, political issues all combined in action (Raelin, 2006). The process of doing assisted in the way to developing leadership effectiveness for the project organisation. The main...
reason being the preference for learning by doing rather than learning from conventional classroom teaching.

<table>
<thead>
<tr>
<th>ARC1</th>
<th>ARC2</th>
<th>ARC3</th>
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<tbody>
<tr>
<td>1) There was collaborative preliminary analysis at this stage</td>
<td>1) There was confusion between value creation from analogical reasoning and decision making from critical reflection (a diverse understanding shown by the participants even though there was the collective identification of these areas as organizational issues)</td>
<td>1) Understanding the impact of personal traits on collaboration</td>
</tr>
<tr>
<td>2) Collaboration is a prerequisite for value creation and decision making towards the organizational problem</td>
<td>2) Improved understanding between participants (the leadership team)</td>
<td>2) Understanding the similarities and differences of value creation from analogical reasoning and decision making from critical reflection</td>
</tr>
<tr>
<td>3) The research participants were reinvigorated by the appreciative approach</td>
<td>3) The observation of organisational politics by the researcher (tacitly demonstrated by the participants)</td>
<td>3) Understanding when to make fast operational decisions and when to do more analysis towards strategic decisions (this is important in project management environments where time is a critical resource)</td>
</tr>
<tr>
<td>4) There was development of leadership thinking in the participants</td>
<td>4) Leadership effectiveness as a process and journey hence the second cycle description as “developing leadership effectiveness”</td>
<td>4) Broader understanding of complexity in stakeholder management (from the integrative and collaborative underpinnings)</td>
</tr>
<tr>
<td>5) Overall appreciation of Leadership Effectiveness that prepares ground for change to happen hence the naming of the cycle ‘appreciating leadership effectiveness’</td>
<td>5) The appreciative undertone is key in improving leadership effectiveness in this particular situation</td>
<td>5) The appreciative undertone is key in improving leadership effectiveness in this particular situation</td>
</tr>
<tr>
<td></td>
<td>6) Leadership effectiveness is an evolving process and requires to continue changing through learning new ways hence naming the cycle ‘evolving leadership effectiveness’</td>
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</tr>
</tbody>
</table>

Sveiby reiterates by saying that after four months only ten per cent of classroom teaching is remembered as opposed to sixty-seventy per cent that is learnt through doing. The summary of the findings of the action inquiry phase is presented in Table 2 below.

**Template Analysis**

The research design involved a second phase analysis called the Template analysis. It is about taking the seven-step process designed by Kings and Brooks (King, 2017). The initial step is getting an in-depth understanding of the data through going back and forth with questions on the data. The next step is the preliminary coding around the objectives of the research called the a priori themes. The third step is clustering the data around the area of concern, in this case – leadership effectiveness. The codes are categorised into upper and lower level codes to reveal a relationship. This is the initial template and is done on about a third of the data. The rest of the data is then applied to the template to capture the rest of the information. The last step is the interpretation of the data which reveals useful insights that...
could not be gleaned from the raw data; this is in the form of logical patterns and relationships.

The template analysis was found useful mainly from its unique advantages; for instance, it is useful in maintaining a philosophical position (Madill, 2000). This fact is reiterated by Kings and Brooks who say it is useful irrespective of ontological and epistemological differences. Furthermore, it has the main advantage of balancing structure and flexibility (King, 2004); in this case, the structure is from the objectives of the study while the flexibility is what came out of the exploration. The Template analysis revealed six main themes as depicted in Table 3. The themes represent the first three themes or the a priori themes that were drawn from the three objectives and three others that came from further exploration and insights.

<table>
<thead>
<tr>
<th>No.</th>
<th>Theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Personal/Group behaviour in leadership effectiveness</td>
</tr>
<tr>
<td>2</td>
<td>Organisational/project value in leadership effectiveness</td>
</tr>
<tr>
<td>3</td>
<td>Decision making in leadership effectiveness</td>
</tr>
<tr>
<td>4</td>
<td>Integrative approach to leadership effectiveness</td>
</tr>
<tr>
<td>5</td>
<td>Questioning approach to leadership effectiveness</td>
</tr>
<tr>
<td>6</td>
<td>Other areas of improving leadership effectiveness</td>
</tr>
</tbody>
</table>

Findings of the Research and Discussion

The analysis was done with the participants in the action inquiry phase and individually in the template analysis. At this point, the findings were integrated for reasons of credibility. The combination is what Stiles calls credibility triangulation of qualitative research which is objectivity in terms of quantitative research. Since this was a single case; there was an intertwining of components like social behaviour that can only be understood in this specific situation (Schegloff, 1991). The findings of the two analysis methods are displayed in Table 4.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Action inquiry phase</th>
<th>Template analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Direct interconnection between collaboration, value creation and decision making</td>
<td>Theme 4 – Integrative approach to leadership effectiveness; that is about thinking and action on the three objectives of the study</td>
</tr>
<tr>
<td>2</td>
<td>The appreciative undertone to the questioning approach produced extended discussions on leadership effectiveness</td>
<td>Theme 5 – Questioning approach to leadership effectiveness; the positive approach to questions</td>
</tr>
<tr>
<td>3</td>
<td>Development and learning element as critical to leadership effectiveness</td>
<td>Theme 6 – Other areas of improving leadership effectiveness mainly on development and learning towards improving leadership effectiveness</td>
</tr>
</tbody>
</table>

Research Findings and Responses to the Research Questions
The first research question was – How can collaboration be used constructively to improve leadership effectiveness? The main action in this study was to rethink leadership approach from an individualistic to a collaborative approach (Raelin, 2012). From the findings, collaboration has been understood to improve effectiveness but only in certain circumstances. The understanding has brought enlightenment to the leadership team through knowing one's trait and knowing the way to alter it for the achievement of better results. The participants, in general, have shown more competitive behaviour that may be tied to the Nigerian environment. The environment is characterised by a high population of over 170 million people and according to Kistruck et al., the country exists in the midst of scarce resources and underdevelopment. Another possible reason for the competitive nature is the positivist background of the participants; an objective approach and single answer facts and figures (Pedler, 2008; Johnson, 2000) rather than the consideration of multiple perspectives found in qualitative thinking (Kember, 2012). Conversely, technical professionals having this kind of background have the main advantage of superior architectural thinking and logical problem solving (Ignatius, 2014). Together these results provide important insights into what approach the leadership team may take to improve the overall situation of the organisation. Hence collaboration can constructively improve leadership effectiveness. How? Through understanding the situation and applying what is required, for instance, when to rely on single answer facts and figures and when to critically reflect and socially construct a multi-perspective approach that leads to sophisticated information and superior judgments (Guba, 1994).

The second research question was - How can analogical reasoning be used towards value creation? The answer to this question is an extension of the collaborative results. Here the focus was on creating value from analogical reasoning as reiterated by Hofstadter who describes analogical reasoning as the fuel and fire of thinking. In this specific case, it was using creative solutions without using either economic or any form of force (Malhotra, 2016). The results indicate that most of the analogy came from previous experience that is tied to the backgrounds of the participants. For instance, the analogies used in the action inquiry phase indicated a connection with traditional and cultural teachings. These backgrounds according to Igusid stand in the way of contemporary business ideas and may cause ineffectiveness. More useful analogies are found in areas like sport, IT, health and entertainment (Hirsch, 2014). The new knowledge of using analogical reasoning for value creation has brought awareness. The awareness is in taking time to think of an analogy that will be useful to a given situation that is difficult and has complexity at its centre. For instance, leadership effectiveness here can be improved from taking the analogy in sport described by Baryam. The analogy is in taking a sport such as soccer; where there is both competition and collaboration at the same time. The players in a team compete for the position of play while they collaborate as a team to win games. Similarly, teams compete against each other and collaborate to make the sport interesting so that they can have a bigger market share of the entertainment industry. So can analogical reasoning be used for value creation? It can be used but after an understanding of the process as displayed by the participants of this research. That is in looking at the big picture of improving effectiveness while looking at the smaller picture of collaboration and value creation from suitable analogical reasoning.

The last research question was how can leadership effectively utilise critical reflection towards effective decision making? The importance of this question lies in removing the personal and group biases present in decision making. The aim is to filter assumptions through critically reflecting on them; but critical reflection is difficult (Rigg, 2008) and is hard to learn (Russell, 2006). The findings in this research confirm the difficulty in critical reflection from two perspectives. Firstly, the participants have to overcome the fear of publicly sharing assumptions and questioning them and secondly, the difficulty in finding time to clear minds so that critical reflection can take place in the ever-busy construction project management environments. The requirements are for proper decisions to be made on
weighty situations. The outcome was another dilemma of differentiating a fine line between when to individually make fast operational decisions and when to take more time and do a more strategic and collaborative analysis with others. The new awareness highlighted the characteristics of operational decisions that require management efficiency as opposed to the leadership effectiveness that requires the consideration of wider social, cultural, economic and political elements (Shenhar, 2004). Overall the results of the research show conformance to evidence-based decision making (Briner, 2009). This type of decision making is made up of four sources of information; the ever-useful practitioner experience, the understanding of the local context, research evidence from facts and figures and the varying perspectives from the other stakeholders. However, since the main action is towards collaboration the varying perspectives of the stakeholders had the smallest contribution to decision making. So did the leadership utilise critical reflection effectively? The evidence is not seen in the business results but there is confirmation of this new understanding that has brought new knowledge to the participants.

CONCLUSION

The aim of the study was to use the available time from the slowing down of operations to learn the way to overcome the current business challenge; this is not through bringing a right answer but through learning a development process. The main contribution of this study was the learning gained from implementing a process of developing collaboration, towards creating value that is directed at effective decision making. The learning is expected to improve business results in future as the leaders have developed a heightened awareness, training has also been achieved, there is also learning that may lead to possible redesign and restructure of the organisation (Bartunek, 2010). These are all important areas that have become a permanent way of inquiry in the organisation (Marshall, 1999). More specifically, the leaders have understood the leadership effectiveness from a perspective that involves taking an integrative approach, a questioning approach and a development and learning approach. These areas broadly sound generic but they are very specific, particular and contextual (Coghlan, 2010; Holian, 1999; Holian, 2013). For instance, the integrative approach requires combining thinking and action on collaboration, value creation and effective decision making. Again the integrative approach requires the combination of the technical background of the leaders to other qualitative leadership attributes. Furthermore, the approach requires a combination with the new findings of the questioning approach and the development and learning approach. Similarly, the questioning approach has provided a process of questioning on self and group biases in order to make better judgments. Again the questioning has brought a process of inquiry into a messy problem such as the problematisation process from the collaborative action learning process (Pedler, 2008). More importantly, is the understanding of questioning as the ultimate leadership tool (Marquardt, 2014), a questioning that is appreciative, learning type and always seeking to open up opportunities. Lastly, the development and learning approach has reiterated the development through personal certification that could be from either a professional perspective or from traditional postgraduate pathways; these provide the capacity to develop problem-solving for mainly practitioner based problems (Nobanee, 2018). Again the development and learning approach has brought a perspective for the leaders to take a situational approach to their collaborative efforts such as knowing when to collaborate and when to compete (see Bar-Yam, 2013); this is a main contradiction with mutual collaborative behaviour one of the main theories that informed this research (Raelin, 2003). Raelin reiterates having mutual collaborative behaviour at all times. Finally, this last approach has provided the capacity to carry out a successful study in the midst of ethical, political, cultural, economic and other challenges that come with organisational change.
From a philosophical stance, the study has revealed that technical professionals with positivist backgrounds may improve their effectiveness from taking a social constructionist position to enhance their interpersonal skills (Al-Suwaidi, 2018). In other words, the applied behavioural sciences may be used to improve leadership effectiveness (Bandiera, 2017). This outcome aligns with Fisher’s work on the way project management skills requires behavioural changes and similar to this study (Nobanee, 2018), has not determined that impact of the change and could be done in future work (Zghal, 2020). Similarly, the four sources of information: local context, practitioner experience, evidence from research and the consideration of stakeholder perspectives could be used to take another perspective of improving leadership effectiveness (Briner, 2009). Additionally, the study was carried out in Abuja, the Nigerian capital – the cultural diversity in Nigeria is very wide and could be studied as a way of improving leadership effectiveness (Hofstede, 2010). But in all this, one of the most important features of the study is in using action research, a methodology that has unique ways of collaborating and overcoming organisational politics at the same time bringing the presence of thinking and action of the participants (Coghlan, 2010).

REFERENCES


