Grounded theory as an appropriate methodology for leadership research in construction

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Abstract

Leadership research in the construction industry has been dominated by positivist methodologies resulting in a much larger proportion of quantitative studies than qualitative approaches. Thus, the richer interpretations which could be possible through the latter are not realised. With growing research focus on leadership in construction, it is pertinent for studies to utilize the grounded theory approach to uncover the basic social processes that drive the leadership phenomenon in construction. Research in the mainstream social sciences has recognized the vital benefits that the grounded theory approach offers. There is dearth of grounded theory application in the extant body of knowledge on leadership in construction. A case is presented here to advocate the strengths of grounded theory and the potential benefits it can offer to research on leadership in the construction industry.

Keywords: Leadership Research, Grounded Theory Methodology, Construction Industry

1. Background

The field of leadership research has changed considerably in how one thinks about, studies, and defines leadership [1,2]. This is mainly because of greater optimism about the field and greater diversity in the methodological approaches being employed by the researchers to study leadership [1]. Bryman [1] further notes the factors that have contributed to this increased optimism and greater methodological diversity, including: improved measurement and analytical methods; greater use of meta-analysis for developing systematic reviews; the surge of interest in transformational leadership and charismatic leadership; more and better cross-cultural studies; and greater diversity in the types of leadership and organizational contexts that became the focus of attention. However, many other researchers have argued that leadership remains a difficult phenomenon to capture and measure.

Research on leadership in construction has particularly been restricted to the use of positivist or quantitative methodologies. Very few studies have utilized qualitative methods to analyze the nature of leadership in the industry. This is ironical. Many have recently argued that leadership must be regarded as a social process [1-6]. Similarly, scholars have argued that construction is a social system in which people are the principal actors [7]. In order to uncover the dynamics of leadership and complex details of the social processes that take place among people in construction, there should be increased use of analyses suitable for studying social processes. This paper underlines the need for the application of more qualitative methodologies to study leadership in the construction industry. It
focuses on three issues: (i) the current methodological trends in leadership research; (ii) why qualitative methodologies are more useful for leadership; and (iii) how the grounded theory framework can help to capture the basic social processes of leadership in construction.

2. Which research method?

Goulding [8] notes that choosing a research methodology is not an easy task. It is time-consuming, laborious and difficult. However, it is personal and reflective process. It also requires evaluation of oneself in terms of convictions, beliefs and interests. Goulding [8] views research as a part of an integrated process involving researchers, their beliefs and experiences, the cooperation of various stakeholders of the research, and suitability and implementation of a chosen methodology which results in an answer that is a single perspective and not an absolute explanation of the problem. In this process, Guba and Lincoln [9] suggest that researchers should address a few questions in relation to their own philosophy, including: (i) the paradigmatic question—“What is the basic belief system or world view that defines the nature of the world, the individual’s place within it and the range of possible relationship to that world?”; (ii) the ontological question—“What is the relationship between the researcher as the would-be knower and what can be known?”; and (iii) the methodological question—“How can the enquirer go about finding out what he/she believes can be known?”.

Buchman and Bryman [10] highlight a number of issues which play an important role in the choice of research methodology such as: aims of research, epistemological concerns, and norms of practice of the researcher who is also influenced by organizational, historical, political, ethical, evidential, and personal factors. Simply put, research method is an integral component of a wider, iterative, and coherent research system in which a number of unavoidable influences need to be accommodated in decisions concerning the choice of method. Buchman and Bryman [10] suggest that the design of organizational research work and the choice of data collection methods remain in part a creative process despite a number of constraints and influences. Therefore, it is important to recognize the role of personal interests, preferences, biases, prejudices, and creativity in addition to technical skills, knowledge, and competence of the researcher. This competence, as Buchman and Bryman [10] conclude, must encompass the ability to address, systematically and coherently, the organizational, historical, political, ethical, evidential, and personal influences on the choice of research methods.

3. Research approaches to study of leadership

3.1 Quantitative approach in leadership research

Quantitative research methods are characterized by the assumption that human behaviour can be explained by social facts. Such methods employ the deductive logic of the natural sciences [11]. Quantitative methods were mainly used for leadership studies during the 1960s and 1970s, due to the bend of leadership research towards psychology, giving rise to the use of the positivism and quantitative methods associated with research in psychology, especially in the US (Parry, 1998). House and Aditya [12] observe that about 98% of the empirical evidence in leadership research is American in character; empirical research on leadership has either been conducted within the US, America or been carried out by those who have studied or have some affiliation to American educational institutions. Other researchers confirm that the vast majority of empirical research on leadership originates in North America [13-15]. Reviewing 10 years of publications in “The
Leadership Quarterly”, Lowe and Gardner [14] found that 64% of studies employed a questionnaire-based method of collecting data. They also reported that around one-third of all the articles were based on a qualitative methodological approach. Reviews by Bryman [1] and Lowe and Gardner [14] show that the number of qualitative studies on leadership is significantly lower than those using quantitative methods. Conger [15] also highlighted the dearth of qualitative studies on leadership.

There have been many criticisms of quantitative approaches for studying leadership. Bryman [1] observes that leadership research has been dominated by a single kind of data gathering instrument—the self-administered questionnaire. Most studies in the literature on leadership employed questionnaires in various contexts including experimental settings, cross-sectional designs, and longitudinal investigations. A few standard sets of questionnaires have been used in a large number of studies. These include: Leadership Behaviour Description Questionnaire (LBDQ), Multi-Factor Leadership Questionnaire (MLQ), Multi-Culture Leader Behavior Questionnaire (MCLQ), Leadership Practices Inventory (LPI), Least Preferred Co-Worker (LPC), Leader Effectiveness and Adaptability (LEAD), and Ethical Leadership Scale (ELC).

Surveys and questionnaires mostly measure attitudes towards behaviors and not the actual behaviors due to social desirability. Such surveys are also not useful as they mostly measure the static situations and do not explain the processes behind them. Such descriptions of leadership fail to help us understand the deeper structures [15] and dynamism of leadership phenomena. Moreover, Bass and Avolio [16] note that the inability of quantitative research to draw effective links across the multiple levels to explain leadership events and outcomes has been a major shortcoming. Yukl [17] shares this perspective and argues that quantitative approaches mostly focus on a single level of analysis and hence ignore several other mediating factors, such as the influence of groups or organizations. Alvesson [4] observes that the inadequacies of quantitative and hypothesis-driven approaches have encouraged researchers to look for alternative qualitative methods. Conger [15] argues that the symbolic and subjective components of leadership have serious implications for research methods [3]. Quantitative methods focus on objectivity and attempt to capture the reality. On the other hand, they are unable to explain the subjective and ever-shifting realities of the leadership process. Other criticisms of the quantitative approach in the social sciences is that it is pseudo-scientific, inflexible, myopic, mechanistic, and limited to realm of testing existing theories [8].

3.2 Qualitative approach in leadership research

Jones [18] observes that qualitative methodologies are strong in those areas that have been identified as potential weaknesses within the quantitative approach. For example, interviews and observations provide a deep, rather than broad, set of knowledge about a particular phenomenon. In a review of qualitative studies on leadership, Bryman [1] selected a total of 66 qualitative studies from social sciences journals from 1979 to 2003. He found that only 10 studies were based on qualitative methodology between 1979 and 1991 whereas 56 studies were published between 1991 and 2003. This increase in the number of studies shows soaring interest of researchers to employ qualitative approaches to research leadership. Bryman [1] observes that the upward trend in qualitative research on leadership did not begin until 10 years after an influential issue of “Administrative Science Quarterly” in 1979. He also found that a large number of studies employed the case study approach. With regard to the data collection method, Bryman [1] found that 56 studies (more than 80%) employed qualitative interviewing (semi-structured, in-depth, unstructured, and biographical
interviewing). Interviewing was the sole technique of data collection in 25 studies. It is ironic that qualitative researchers tend to use interviewing when other techniques of data gathering (such as document analysis, observation and anthropology, discourse and conversation analysis, visual data, and case studies) could be used to complement interviewing. However, a number of issues often make interviewing the only option available. Particularly, observational techniques are hard to use for several reasons such as the need for greater investment of time; observing acts of leadership is a complex matter; observation involves a large expenditure of time for relatively little return in terms of data; problems finding gaining access to leaders who are willing to allow the observation; and potential of contamination of observation due to presence of the participant observers. There are also several ethical and methodological dilemmas in being an observer in a research setting associated with entering the field, positioning and disclosure, shared relationships and disengagement [19].

Conger [15] recognized that qualitative approaches may be intensive, complex, expensive and time consuming. However, they are rich in detail and illuminating in new ways to explain the complex phenomenon of leadership. Conger [15] also notes that qualitative research studies are particularly important during exploratory phases of researching a new area. However, he argues that, in leadership research, qualitative research plays an important role at all stages of investigation because of the extreme and enduring complexity of the leadership phenomenon itself. Parry [20] shares this sentiment and observes that qualitative approaches, due to their painstaking data collection and analysis techniques, have been under-utilized by leadership researchers. Parry [6] observes that greater use of qualitative approaches in the recent past is resulting in a fuller and richer understanding of the nature of leadership. Similarly, Martin and Turner [21] argue that qualitative approaches allow richer descriptions, sensitivity of ideas and meanings of the individual concerned, and increased likelihood of developing empirically supported new ideas with practical relevance. Qualitative approaches help in discovering new ideas and phenomena rather than verifying the old and existing theories [22]. Conger [15] advocates that qualitative methods offer a number of benefits, including: greater opportunity to examine the process in depth; the flexibility to discern other contextual factors; and more effective means to investigate symbolic dimensions.

However, qualitative research is not without shortcomings. Alvesson [4] suggests that qualitative research is as superficial as quantitative approaches; however, the shift to the use of qualitative methods should be welcomed. One of the most often mentioned limitations of qualitative research is its over-reliance on interviews as a principal methodology [15]. The qualitative approach to research methodology has been criticized as being exploratory, filled with conjecture, unscientific, and a distortion of the canons of ‘good’ science [8]. The approach and its results are also viewed as being soft hearted, pitying, and even too foolish to be taken seriously [23]. In opinion of Morse et al. [24] qualitative research leads nowhere and predominantly relies on inference, insight, logic and luck. Qualitative research is also accused of being novelistic, entertaining, descriptive, not sufficiently rigorous, incapable of explaining why things happen, and having no hard and fast rules of procedures [8]. Table 1 shows the differences and similarities between qualitative research and the quantitative approach.
Table 1: Characteristics of qualitative and quantitative methods

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Qualitative Research</th>
<th>Quantitative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal/purpose</td>
<td>Understanding/meaning from the participation</td>
<td>Explanation/prediction from data</td>
</tr>
<tr>
<td>Theory</td>
<td>Generation</td>
<td>Testing</td>
</tr>
<tr>
<td>Sample</td>
<td>Participants</td>
<td>Subjects</td>
</tr>
<tr>
<td>Researcher/sample</td>
<td>Direct involvement</td>
<td>External involvement</td>
</tr>
<tr>
<td>relationship</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instrument</td>
<td>Research is “tool”</td>
<td>Established, pre-tested tool</td>
</tr>
<tr>
<td>Findings</td>
<td>Narrative/inclusive for depth</td>
<td>Data/exclusive and limited to narrowed focus</td>
</tr>
<tr>
<td>Analysis</td>
<td>Meaning from findings</td>
<td>Numerical interpretation and significance</td>
</tr>
<tr>
<td>Significance</td>
<td>Applicable only to the sample</td>
<td>May be generalizable to the population</td>
</tr>
</tbody>
</table>

Source: Masters et al. [28]

3.3 Combining qualitative and quantitative approaches in research

The debate about quantitative and qualitative research at the epistemological level originated in the mainstream of the social sciences and was also known as ‘the paradigm wars’ [25]. ‘Paradigm wars’ refers to the competing perspectives of proponents of quantitative and qualitative research which are considered to be distinct and based on fundamentally different principles. The debate was predominantly initiated and extended by qualitative researchers who purported a distinctive philosophical position for their approach and presented an intellectual rationale for it in the face of the hegemony of quantitative investigations in journals and elsewhere. As a result, awareness of qualitative approaches grew and peace was slowly restored among the researchers. Bryman [26] observes that research that involves the integration of quantitative and qualitative research has gained popularity in recent years. Such approaches have been given numerous names, such as multi-methods, multi-strategy, mixed methods, or mixed methodology research. Bryman [22] suggests that more abstract philosophical issues should be linked with questions of research practice. This would be a more sophisticated way of treating the comparability of different methods of investigation than direct juxtaposition in terms of relative superiority. Rocco et al. [27] argue that ‘mixing methods that bring together the strengths of both quantitative and qualitative methods will enhance research in the field’ [27, p. 604]. Bryman [1] suggests that qualitative research on leadership can serve the area better by engaging much more with quantitative research in terms of its findings and literature. This way, it would become integrated into the field while simultaneously maintaining a distinctive approach to designing research and gathering data.

In the literature, several researchers have combined qualitative and quantitative approaches in their studies to achieve the research objectives [29-35]. For example, Rosner [32] studied women leaders and employed questionnaires followed by interviews. Egri and Herman [29] in their study of leaders in non-profit organizations, used both questionnaires and interviews to study the transformational and transactional behavior of leaders. Such studies are mostly cross-sectional in design, and use qualitative interviewing as the data collection tool. There are many reasons why researchers combine...
qualitative and quantitative research. In most cases, it is done to achieve triangulation of data and to examine how far the results from both methods are similar. Although there is no hard and fast rule about the sequence in terms of the method which should be used first, most researchers use qualitative research studies to prepare for quantitative data collection. However, many studies employ interviews to validate their quantitative findings. Moreover, the combining of quantitative and qualitative methods is also done to achieve different objectives and address different research questions.

Bazeley [36] and Bryman [26] discuss why and how quantitative and qualitative approaches can be combined to achieve the desired results. Bazeley [36] asserts that mixed methods research has several benefits including greater validity of results. However, the mixing quantitative and qualitative methods also has its problems in terms of definitions, paradigms, and methodology. Moreover, issues such as the nature of design, sampling techniques, research instrument, analysis techniques, financial and time constraints, and finally, adequate skills required to mix the research continue to find critique in research works. Bazeley [36] discusses triangulation. He argues that, as opposed to its original meaning, triangulation has recently been used loosely as a synonym for mixed methods without regard to either of the conditions inherent in the original concept. Triangulation was originally conceived as the conduct of parallel or otherwise duplicated studies using different methods to achieve the same purpose. This was mainly done to achieve the same results from different methods and find a stronger support for the conclusions. It was more like a validation technique. There has been criticism of the ability of triangulation to provide validation as each source must be understood on its own terms [37]. Bazeley [36] also argues that “Mixed methods are inherently neither more nor less valid than specific approaches to research. As with any research, validity stems more from the appropriateness, thoroughness and effectiveness with which those methods are applied and the care given to thoughtful weighing of the evidence than from the application of a particular set of rules or adherence to an established tradition.” (p. 9). Jones [18] observes that the vital feature in justifying a mixed methodology research design is that qualitative and quantitative methodologies have strengths and weaknesses. Adequate mixing both methodologies can be useful for combining the strengths of both methodologies. Hence, the researcher should aim to achieve the situation where mixing both qualitative and quantitative methods can produce a final product which can highlight the significant contributions of both [38].

### 4. Trends in leadership research in construction

In their review of empirical studies of leadership in the construction industry, Toor and Ofori [39] note that most of the studies utilized quantitative methodologies, using survey questionnaires to collect information. Few studies used qualitative methodologies based on interviews and case studies. However, such qualitative studies did not extend beyond interviewing the subjects or analyzing some official documentation to develop rigorous analyses. They also found that the studies were cross-sectional in nature. Thus, there was a heavy bias in static, cross-sectional analysis, and comparative statistics [2]. It is, therefore suggested in the mainstream literature that leadership, being temporal in nature, must be examined through longitudinal studies [40]. Particularly, in construction projects, some researchers have argued that project managers tend to employ different leadership styles during different stages of the project [41]. This conclusion should be further explored through longitudinal studies which can also investigate how project managers adapt their styles and approaches to new projects and what influences their leadership styles in a new environment. Toor and Ofori [39] also suggest the use, in leadership research, of more qualitative techniques such as the grounded theory
approach; observational techniques [15]; narratives, personal writing, stories, or biographies [42]; ethnographic studies [43]; and psychometric neuro-scientific methods.

5. Leadership as social process

An important issue to address is whether leadership is solely about qualities, behaviors, and attributes of the leader, as advocated in many classical theories, or it is actually a social process comprising the leader, followers, and situations. Yukl [17] also claims that, after thousands of studies on the subject, a general theory of leadership that can explain all aspects of the process adequately has not been developed. Most leadership studies have also focused on a single level of analysis, ignoring the influence of intra-psychic, group, or organizational factors. There seems an excessive focus on ‘the leader’ rather than leadership [44], especially in North American research [1, 44, 45]. Meindl et al. [46] share this sentiment, and note that outcomes are often linked to the leader, forgetting that many other factors also play a significant role. On the other hand, many scholars view leadership as a relationship between leader and led that can energize an organization [47]; an art of creating a supporting work environment [48]; a phenomenon that works on the system [49]; an inspiration and support of people to do things [50]; and creation of a common vision to achieve results by persuading others [51] in a trust-based environment [52]. It is primarily about influencing others [53]; it is not only the influence of a leader on followers but the collective incremental influence of leaders in and around the system [54].

Conger [15] views leadership as a complex and dynamic process which is a social construction, and exists at multiple levels of organizations. These views indicate that leadership is a social process of influence [6, 15, 17, 20, 55, 56] that engages everyone in the community [57]. Therefore, leadership is a function of the social resources that are embedded in relationships, the environment, structure and technology of organizations [54]. It is about bringing people together around a shared purpose and empowering them to step up and lead in order to create value for all stakeholders [58]. Others share the same perspective, noting that leadership is a process [1-4]. In this process, leaders interact and communicate with, and influence others. Parry [20] explains that a process involves change (which occurs over time), and the linking of interactional sequences. This implies that the relationship between leaders and followers is also a process which involves changes in beliefs and motivations of followers that occurs within organizations which act as communities.

Many consider leadership to be about the future [59], about creating and coping with change in organizations [60, 61]. Others note that change is inherent in leadership [5, 20, 54, 59]. Change incidents may form the basis for investigating the leadership process. Bass [55] noted that leadership involves restructuring of the situation. Kotter [61] argued that leadership can be differentiated from management due to the inherent notion of change in leadership. Conger [15] noted that achievements, failures, crises, changes, always reshape the experiences of the leader and the led. Leadership occurs within a group context as well as within a dyadic relationship [53, 62]. However, the effectiveness of leadership is largely dependent upon the context. Osborn et al. [53] argue that leadership “is socially constructed in and from a context where patterns over time must be considered and where history matters” (p. 798). The concept of context is similar to what contingency theories of leadership advocate, that leadership style cannot be separated from the conditions under which leadership is exercised [63]. Osborn et al. [53] suggest that contextual macro views need greater recognition than they receive currently. They suggest four contexts—stability, crisis, dynamic equilibrium, and edge of
chaos—to explain the context of leadership in organizations. They consider leadership as a series of attempts, over time, to alter human actions and organizational systems.

From the above discussion, there is a conceptual basis for the conclusion that leadership is a process in a social context [20]. Therefore, researchers have purported that analysis of leadership as a process can enhance one’s understanding of it [2, 20]. This is a conception of leadership which departs from “role” to “process”. Kan and Parry [5] observe that defining leadership as a process supports the notion that leadership is not a linear or mono-directional phenomenon; it is rather multi-directional, involving formal leaders, informal leaders, and followers. Thus, Parry [20] argues that leadership research should focus on the social processes that go on between people and which have a leadership impact. This is because irrespective what behaviors people employ in leadership roles, many other variables influence the impact which these leadership behaviors have upon followers and upon the context of work.

6. Construction as a social system

The nature of leadership as a process which takes place within a social system—comprising groups, organizations, and so on—is further strengthened when it takes places in the construction industry. Love et al. [7], in their critique of methodologies in construction research, argue that construction is a social system and people are the principal actors in construction projects. They note that the social system that exists in a construction project is no more than the sum of individuals. Since humans change over time, undergoing different circumstances, their behaviour and the resulting structure of the social system they construct is also open to change. After it has been established that construction is a social system and humans are principal stakeholders in this social dynamics, it is pertinent to evaluate what research methodologies are adequate for construction leadership research.

7. Grounded theory as a potential research method

Originally developed in medical research [64], grounded theory is a method well suited to enhancing the development of knowledge on leadership. Grounded theory uses qualitative research methods with the aim of generating theory which is grounded in the data, rather than testing existing theories [65-67]. Glaser [[66] noted that grounded theory is useful for research related to human behaviour in organizations, groups, and other social configurations. Parry [20] suggests that as leadership is a process of social influence, this makes grounded theory a relevant method of analysis as it emphasizes theory development rather than testing an existing theory. In the opinion of Hunt and Ropo [2], grounded theory discovers the underlying social processes and forces that result in a particular activity or phenomenon.

7.1 Support for Grounded Theory for Leadership Research

Researchers in the mainstream social sciences research have employed, and called for the application of, qualitative methods to study leadership style and behavior [15]. Many researchers have also emphasized the application of the ‘grounded theory approach’ [64, 67] to theorize leadership [2, 3, 5]. The key argument here is that leadership is a basic social process [6, 15, 17, 20, 56, 68] with a number of intervening variables which makes it dynamic and complex. This, therefore calls for more grounded qualitative approaches that can dig deep into social realities and can uncover the intervening
variables and forces that influence leadership [69, 70]. It can also be used to examine leadership incidents in various organizational contexts [5, 20, 71, 72]. The grounded theory approach will also be helpful to refresh and considerably compliment the existing works on leadership [8]. In the opinion of Kan and Parry [5], the grounded theory approach is capable of capturing the complexities of the leadership process without discarding, ignoring, or assuming away relevant variables. The richness of the data in the grounded theory approach ensures that the resulting theory is fully able to elaborate upon the leadership process for participants and fellow researchers alike. Many researchers agree that a full grounded theory approach can provide valid and reliable findings explaining the leadership phenomena under a given context [2, 3, 15, 20].

In addition to a detailed account of how grounded theory can be useful for leadership research, Parry [20] also underlines a number of aspects one should consider while using the grounded theory approach in leadership research. He observes that one must observe or undertake interviews in depth about the process of social influence. To do this, one must have a definition of leadership to ensure that the phenomenon under consideration is leadership and not something else. Also, such research should be more concerned with the leadership process rather than leaders themselves. The interview subjects for this purpose should be statistically random. Therefore, the interviews can come from a range of levels in the hierarchy, various functional areas and from different stages of the change process. During this whole process, until the grounded theory has been generated, it is not appropriate to consider any existing leadership theories. However, after the generation of grounded theory, its comparison with extant theories is useful.

The grounded theory approach for leadership research is not without weaknesses and limitations. These weaknesses mostly pertain to the validity and reliability of the generated theory. Parry [20] suggests that multiple sources of data collection are useful to improve the validity of the findings. However, in addition to multiple sources of data, an interviewing strategy should be the core of the data gathering approach for grounded theory research in leadership.

### 7.2 Application of Grounded Theory in Leadership Research

A number of studies have been conducted in leadership research using the grounded theory approach. These include Fernando and Jackson [73], Harchar and Hyle [74], Hay and Hodgkinson [75], Hunt and Ropo [2], Irurita [76], Jones and Kriflik [77], Kan and Parry [5], Kempster [72], Lakshman [78], Parry [79], and Sjoberg et al. [80]. Table 2 shows characteristics of selected studies that have used the grounded theory approach. These studies have been conducted across a wide spectrum of organizations, contexts, and leadership situations. They explore a number of topics related to leadership, such as administrative instructional leadership, leadership in turbulent change, indirect leadership, role of spirituality in leadership, leadership learning, and leadership in stressful and complex rescue operations. The studies have been conducted in manufacturing, the health, educational, and government sectors, the military, and rescue-services organizations. Unlike quantitative research, which is predominantly North American in nature, the grounded theory approach has been used in America, and many countries in Europe, and Asia-Pacific.

From Table 2, qualitative interviewing has been the primary data collection tool in the application of grounded theory in leadership research while some studies have used informal interviewing, observational techniques, and document analysis. Kan and Parry [5] used both qualitative and
quantitative data for triangulation purposes. They used Multi-factor Leadership Questionnaire (MLQ) to bring quantitative psychometric data into grounded theory analysis. This innovative way of using quantitative data in grounded theory analysis is quite rare in leadership studies. Table 2 shows that several researchers have effectively used the grounded theory approach to research various topics of leadership. It also shows that researchers have predominantly used qualitative interviewing for data collection. This feature of qualitative research on leadership has been mentioned by some authors [1, 15, 5]. Kan and Parry [5] observe that leadership research traditionally tends to control for variables, such as hierarchy or groups, to comply with the positivist nomothetic tradition. On the other hand, the grounded theory method attempts to develop new theories and propositions rather than testing the existing theories. However, adequately mixing quantitative data with qualitative data helps to better understand the leadership phenomenon in more depth.

Table 2: Application of grounded theory for leadership research

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Sector</th>
<th>Nature of study</th>
<th>Research methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunt and Ropo (1995)</td>
<td>USA</td>
<td>Manufacturing Industry</td>
<td>A CEO’s tenure at General Motors</td>
<td>Interviews relating to Roger Smith’s tenure as CEO at General Motors</td>
</tr>
<tr>
<td>Harchar and Hyle (1996)</td>
<td>USA</td>
<td>Educational Sector</td>
<td>Understanding administrative instructional leadership in the elementary school</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Parry (1999)</td>
<td>Australia</td>
<td>Local Government</td>
<td>Organizational turbulent change in local government settings</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Kan and Parry (2004)</td>
<td>New Zealand</td>
<td>Health Sector</td>
<td>Understand the leadership processes operating within the nursing environment of a hospital undergoing organizational change</td>
<td>Non-participant observation Qualitative Interviewing Document Analysis Multifactor Leadership Questionnaire (MLQ)</td>
</tr>
<tr>
<td>Bjorkman (2005)</td>
<td>Sweden</td>
<td>Military</td>
<td>Understanding of how indirect leadership is done in a military context</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Fernando and Jackson (2006)</td>
<td>Sri Lanka</td>
<td>Business</td>
<td>Workplace spirituality and leadership</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Hay and Hodgkinson (2006)</td>
<td>UK</td>
<td>Educational Sector</td>
<td>Conceptualizing leadership afresh</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Jones and Kriflik (2006)</td>
<td>Australia</td>
<td>Public-Sector Organization</td>
<td>Leadership process within the substantive setting of a cleaned-up bureaucracy</td>
<td>Qualitative Interviewing</td>
</tr>
<tr>
<td>Kempster (2006)</td>
<td>UK</td>
<td>Multinational Public Company</td>
<td>Understanding of underlying influences shaping leadership</td>
<td>Qualitative Interviewing</td>
</tr>
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</table>
8. Conclusion

Leadership research in the mainstream social sciences as well as in construction continues to utilize positivist methodologies. However, there is evidence that qualitative or interpretivist methodologies have the potential to take leadership research in a new direction and to a high level by discovering the basic social process that drives the dynamics among leaders and followers under given circumstances.

The grounded theory approach can be useful in helping to uncover the social processes that are fundamental to leadership. While mainstream researchers have already recognized the significance of grounded theory for leadership research, its use remains scarce in construction research. No evidence of grounded theory approach for researching leadership is found in the construction literature. Given the importance of leadership in construction, it is a timely for scholars to use grounded theory methodology to develop richer interpretations, frameworks, and theories of leadership in construction. It would be beneficial if a network of researchers could be formed comprising those interested in leadership and those who have previously used the grounded theory approach in their past research. This can be helpful in training potential grounded theory analysts who can then use this approach to study leadership and other related disciplines in the built environment.

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