

The Impact of Green Innovation on Top Management Leadership Attributes

Noormaizatul Akmar Ishak¹ and Hartini Ahmad²

ABSTRACT

The main reason businesses need to innovate is due to its necessity to sustain and survive, and not for the matter of how brilliant and visionary the leaders of the organization are. Innovation has known for its very significant role in the organization progression and growth. Innovation can happen in the products, processes, and services being embark by organizations to make more profit by reducing operational cost and making processes more efficient. The concern over the environment all around the world has encouraged innovation to be more tailored to the “green”. “Green” is a name that being associated with anything or any action that has impact to the environment such as green building, green government and green innovation. This paper will discuss the impact of green innovation to the top management leadership attributes in the Government-linked Companies (GLCs) in Malaysia. The leadership must be sensitive and understand the green demand and situational in the Malaysia and around the world with respect to the industries that these GLCs are operated. This is where the top management leadership attributes will be justified to fit the green innovation implementation. This constructive research is a qualitative multicases study. Data collection is done via interviews, focus group discussion and document analysis. The result will be analyzed to see the themes emerge from the data before the analysis being interpreted.

Keywords: green innovation, sustainability, top management leadership attributes.

1. INTRODUCTION

The motivations for adopting and diffusing green innovation has started by the movement at the international level, goes down to countries, communities and organizations around the world. In Kyoto, Japan on 11 December 1997 The

¹ NOORMAIZATUL AKMAR ISHAK, Lecturer, Centre of Communication Skills and Entrepreneurship, Universiti Malaysia Perlis, Kangar, Perlis, maizatul@unimap.edu.my.

² ASSOCIATE PROFESSOR DR HARTINI AHMAD, College of Business, Universiti Utara Malaysia, Kedah, Malaysia, hartini@uum.edu.my.

United Nations (UN) initiated The Kyoto Protocol under an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC) that targeted 37 industrialized countries and the European community to reduce greenhouse gas (GHG) emissions. The purpose of the Convention was to encourage industrialized countries to stabilize GHG emissions, and Protocol asked for their commitment to do so that will prevent climate changes and global warming. Developing countries are recognized as primary responsible for the current high levels of GHG emissions in the atmosphere due to more than 150 years of industrial activity. Thus the Protocol places a heavier burden on developed nations under the principle of “common but differentiated responsibilities.” (UNFCCC, 2009).

On 18 December 2009 located in [Copenhagen](#), Denmark the parties of the UNFCCC meet for the last time on government level saw more than 110 world leaders attended before the climate agreement need to be renewed due to its timeline ends in 2012. Therefore Copenhagen Protocol is essential for the world’s climate success (erantis.com, 2009). Prime Minister Y.A.B. Datuk Seri Mohd Najib Tun Abdul Razak on behalf of Malaysia is willing to offer its commitment on credible cuts in its emissions of carbon dioxide into trying to clinch a deal on deeper emissions cuts by rich nations, steps by developing nations to cut their carbon pollution and finance to help the poor adapt to climate change. UN has said a full, legal treaty to expand or replace the existing Kyoto Protocol is out of reach at the talks, after two years of troubled negotiations, and is likely to be agreed some time in 2010 (Chance & Ahmad, 2009). If all the countries can be persuaded to commit and responsible to this issue that under their jurisdiction, therefore we would see gradual changes in the way we live, work and communicate with each other.

Since the late 1980s, environmentalist activist organizations have advocated the use of consumer pressure through boycotts of environmentally damaging products for sale, and, indeed, to influence their policies toward the environment overall (Green, Morton & New, 2000). Green innovation is defined as hardware or software innovation that is related to green products or processes, including the innovation in technologies that are involved in energy-saving, pollution-prevention, waste recycling, green product designs, or corporate environmental management (Chen, 2006). Regardless of the industry, going ‘green’ has become a business imperative for executives around the world. ESG’s research shows that the majority of senior executives believe green business initiatives will have significant impact on the sustainability and success of their organization over the next 20 years (Turner & McKnight, 2008).

New leaders will continue to learn through a collection of experiences and exposure to new ideas and the flow of knowledge. While different types of innovation are common place such as breakthrough, sector and technological, most approaches will benefit from a social constructionist perspective that is

linked to the establishment of various learning processes and innovative cultures (Murray & Blackman, 2006). Therefore top management leadership attributes should match the green innovation demand and constraints especially in the GLCs that carry the national aspiration.

2. THE PROBLEM

Businesses are above all things a collection of people and to be the best, the best people should be hired to create and nurture the best teamwork (Leighton, 2007). Government regulations directly affect the selection of projects that an organization will pursue (Green, Morton & New, 2000). Top administrators serve as a bridge between the organization and the technological environment because the top administrators' exposure, status and rank place them in a position to introduce change into the organization. They are exposed to new ideas, and their ideas count although there is findings that top administrators influence organizational innovation without actually introducing innovation (Daft, 1978).

Innovation is everybody's job – not only for marketing, designing better product and services, packaging or developing new delivery system. Chief Executive Officer (CEO) need to understand where innovation comes from and how to harness its power (DeGraff & Quinn, 2007). Even if there are not direct regulatory constraints in operation, an organization might innovate because it anticipates demand from its customers for more environmentally friendly products (Green, Morton & New, 2000). GLCs managers are usually appointed from the ranks of senior civil servants and military officers being promoted on the basis of their performance and high quality but they are also been criticized for being too risk-averse and lacking sufficient entrepreneurial drive. A number of new senior executives brought into the GLCs from the private sectors and some from abroad subsequently also left before completing their contracts (Ramirez & Tan, 2004).

In their study to develop a framework for examining leadership in extreme contexts, Hannah, Uhl-Bien, Avolio & Cavarretta, (2009) notice the importance of leadership dynamic study has on the reliably successful performance in extreme events where leaders cannot fail. With respect to this study where current global economic challenges and environmental critical issues are the extreme contexts, top management of Malaysia GLCs can adopt and diffuse green innovation in their businesses strategy in order to keep their business sustain and success. Due to the constraints and contingencies in green innovation contexts, will grant further confirmation on the validity of assumptions and boundaries of current models of leadership (Hannah,Uhl-Bien, Avolio & Cavarretta, 2009).

Due to scarce study on the top management leadership attributes in the Malaysian GLCs that related to green innovation, it is the intention of this study to explore how their leadership attributes match and adapt to context and situational change. Why they think green innovation can sustain their business and have competitive advantage over their competitors.

3. METHODOLOGY

Research Design and Paradigm

According to Bogdan & Taylor (1975) as being cited by Creswell (2007), research design is referred to the entire process of research from conceptualizing a problem to writing research questions, and on to data collection, analysis, interpretation, and report writing. Yin (2009, 26) defined research design as "...a logical plan for getting from here to there.", where "here" may be defined as the initial set of questions to be answered, and "there" is some set of conclusions (answers) about these questions. Between "here" and "there" may be found a number of major steps, including the collection and analysis of relevant data.

The research design process in qualitative research begins with philosophical assumptions that the inquirers decide to undertake a qualitative study which are ontology, epistemology, axiology, rhetorical and methodological assumptions (Creswell, 2007). The terms 'positivist' and 'empiricist' often denote the same fundamental approach as 'quantitative', while 'naturalistic' field research, 'ethnographic', 'interpretivist', and 'constructivist' are sometimes used instead of 'qualitative' (Bryman, 1984). Flick, Kardoff and Steinke (2002) as cited by Flick (2002) stated that qualitative research also known as hermeneutic, reconstructive and interpretative approaches. The term 'methodology' whether described as quantitative or qualitative, will refer to an epistemological position; and 'method' and 'technique' will be used to refer to ways of gathering data (Bryman, 1984).

Jackson & Trochim (2002) as cited by Vitale, Armenakis & Field (2008) implied qualitative collection methods, including interviews, focus groups, participant observation, and open-ended survey items have great potential for exploring new topics, assisting theory building, and providing context for quantitative data. The qualitative researchers produce 'rich' data that have a great deal of depth (Bryman, 1984). If considered from a paradigm perspective, the qualitative method provided a much richer, contextual understanding of the underlying beliefs and assumption which enhanced understanding would have been impossible to achieve if only the quantitative analysis had been done (Yauch & Steudel, 2003).

The researchers believe that the exploratory approach is the best choice to answer the research questions. With qualitative method the researchers will get vast data from the respondents, and it can be used to construct additional block to existing theories from the themes emerge from the data being collected with respect to the top management leadership attributes in the GLCs.

Research Strategy of Inquiry

Denzin & Lincoln (2000, 22) state the strategy of inquiry comprises a bundle of skills, assumptions, and practices that the researcher employs as he or she moves from paradigm to the empirical world. It puts paradigms of interpretation into motion, and also connects the researcher to specific methods of collecting and analyzing empirical materials. The popular qualitative strategies of inquiry are narratives, phenomenology, ethnography, case study, and grounded theory where the case study and grounded theory are suitable to explore the process, activities and events (Creswell, 2009, 177). Even though it may be recognized among the array of qualitative research choices, some case study researches use a mix of quantitative and qualitative evidence (Yin, 2009, 19). The research strategies employ and bond paradigms in specific empirical sites, or in specific methodological practices such as making a case as an object of study (Denzin & Lincoln, 2000, 22).

According to Stake (2000, 435), case study is not a methodological choice but a choice of what is to be studied analytically or holistically, entirely by repeated measures or hermeneutically, organically or culturally, and by mixed methods – but the researcher concentrates, at least for the time being, on the case. This method allows the researcher to retain the holistic and meaningful characteristics of real-life events such as individual life cycles, small group behaviour, organizational and managerial processes, neighbourhood change, school performance, international relations, and the maturation of industries (Yin, 2009, 4). In their experiential and contextual accounts, case study researchers assist readers in the construction of knowledge (Stake, 2000, 442).

A case study is both a process of inquiry about the case and the product of that inquiry (Stake, 2000, 436). In general, “what” questions may either be exploratory (any of the methods could be use) or about prevalence (in which surveys or the analysis of archival records would be favoured) whereas “how” and “why” questions are more explanatory and likely to lead to the use of case studies, histories, and experiments as the preferred research methods (Yin, 2009, 10). But the more the object of study is specific, unique, bounded system, the greater the usefulness of the epistemological rationales being described in case study (Stake, 2000, 439). Experienced investigators review previous research to develop sharper and more insightful questions about the topic (Yin, 2009, p14). Therefore the research technique must fit the problem at hand (Bryman, 1984). Either for single or collective case studies, selection by sampling of attributes

should not be the highest priority judged against the significant of balance and variety where the opportunity to learn is primary important (Stake, 2000, 447). The researcher should examine various interests in the phenomenon, selecting a case of some typically, especially if the special circumstances may yield unusual insight into an issue (Stake, 2000, 450).

The challenges faced by case study findings are the lack of rigor studies by the researcher and the biased views that influence the direction of the findings and conclusion (Yin, 2009, 14). The most critics are how the search for particularity competes with the search for generalizability that contributes to theory building (Stake, 2000, 439; Yin, 2009, 14).

In this study, the researcher decided to do interviewing, focus group discussion and document analysis as being suggested by Denzin & Lincoln (2000, 22). It is a multicases study with the unit of analysis is the GLCs organizations. What all should be said about a single case is quite different from what should be said about all cases. Each case has important atypical features, happenings, relationships, and situations (Stake, 2000, 439).

Research Method

Every research method can be used for all three purposes – exploratory, descriptive, and explanatory depending on the type of research question posed, the extent of control an investigator has over actual behavioural events, and the degree of focus on contemporary as opposed to historical events (Yin, 2009, 7). For this explotary case study, it was done in two phases: the primary data collection and the secondary data collection. The Figure 3.1 below shows the phases of the study.

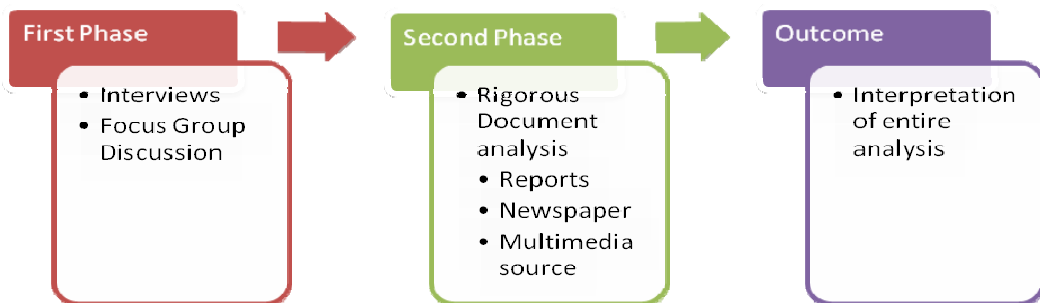


Figure 1. The phases of the study.

In the primary data collection, two interviews and one focus group discussion were conducted with the purposive sampling respondents. The respondents were asked with structured-open ended questions. Focus groups have an element of flexibility and adaptability in terms of setting and the participants where their open-ended nature offers the benefit of allowing insight into the world of the participant in the participant's own language (Litosselity, 2003, 12). Focus group are intended for gaining information and listening to people's views in a non-threatening environment – not to teach, inform, make decisions or resolve conflict (Krueger, 1994). It offers the researcher the opportunity to study the way in which individuals collectively make sense of a phenomenon and construct meanings around it (Bryman & Bell, 2007). In conjunction with other methods, they can be used for validity checking of findings and triangulation between methods (Litosselity, 2003, 17).

The secondary data collection was focuses on the documents produced that related to the green innovation, leadership and GLCs business ventures that related to focus of the study. The documents were in the forms of reports published on the official websites of the GLCs, the newspaper, and also the multimedia materials such as the Prime Minister speeches and interviews, and the statements or interviews given by the top management of GLCs in the television, radio, newspaper, magazine, internet, conference, or forum.

All of these data will be analyzed and the patterns that emerged from the data will be matched. It is the intention of this study that the interpretation of all of the analysis will contribute additional building blocks to the existing leadership theories.

Sampling

The unit of analysis for this study is GLCs. GLCs are defined as companies that have a primary commercial objective and in which the Malaysian Government has a direct controlling stake. Controlling stake refers to the Government's ability (not just percentage ownership) to appoint Board of Director members, senior management, make major decisions (e.g contract award, strategy, restructuring and financing, acquisitions and divestments etc) for GLCs either directly or through Government-linked Investment Companies or GLICs (Berhad, 2010).

The researcher used the purposive sampling when determined the samples of the GLCs organizations to be studied based on these GLCs businesses operation and ventures that related to green innovation. In purposive sampling, the inquirer

selects individuals and sites for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study (Creswell, 2007).

A prominent statesman was interviewed as a respondent in gathering data. He is a very knowledgeable person in many areas especially in the topics of leadership, management and technology that soundly related to this study. He provides his advices to few GLCs organizations.

The GLCs organizations were chosen based from their businesses nature and involvement with the green innovation as being reported in the media. Three Government-linked Investment Companies (GLICs) and fifteen GLCs were invited to join the discussion. GLICs were invited in the discussion because they are the main shareholders in GLCs. Two GLICs and five GLCs participated in the discussion with all respondents are holding the top management positions in their organizations.

Then an interview with a top management person of a multinational company (MNC) was conducted as a benchmark to the green innovation implementation in non-GLCs organization that runs business in the same nature as GLCs.

Data Collection

A letter was sent to the statesman private secretary to ask permission and enquire date to interview him. The interview questions were also enclosed in the letter. Then a telephone call was followed as to make sure the letter was received. Two months after the letter was sent, a letter was received informing that the statesman agreed to be interviewed and a date and venue was stated in the letter. The interview was conducted in the statesman office in Kuala Lumpur despite his hectic schedule. The interviewed was done for one and half hours and recorded with digital voice recorder.

To conduct the focus group discussion was a very challenging process. The venue was chosen first, which was Kuala Lumpur, so that it will be convenient for the participants to come. Then the date which the venue was available was confirmed. Both of the information: venue and date needed to be confirmed before an invitation letter was sent to the Human Resource Department (HRD) of participants' organizations. The researcher had to follow up with the personal assistant of the Head of HRD on the status of the participants who will be coming to the discussion and this took very much effort to convince them that the discussion will not require the participants to reveal any confidentiality of their organizations' strategies. The discussion was conducted in U-shape arrangement with researcher acted as facilitator. During the discussion, the researcher welcomed the participants and explained the purpose of the discussion, and what it could contribute to the research findings. The participants were responded to

the questions asked with no order as everybody was free to give answers and opinions. Everyone was very comfortable and ease with each other during the discussion without any moment of silence except continuously full with comments. The discussion was recorded with digital voice recorder and lasted for three hours.

The interviewed with the top management of MNC was conducted in a room in Universiti Utara Malaysia (UUM), Kedah during his visit to deliver a talk there. The arrangement of the interview was done through and with the permission of COBC-IB, UUM. The interviewed was done for half an hour and recorded with digital voice recorder.

The hermeneutics document analysis referred to the articles that related with leadership, green innovation and GLCs from the reports published on the official websites of the GLCs, the newspaper, and also the multimedia materials such as the Prime Minister speeches and interviews, and the statements or interviews given by the top management of GLCs in the television, radio, newspaper, magazine, internet, conference, or forum.

The case study researcher faces a strategic decision in regard to how much and how long the complexities of the case should be studied (Stake, 2000, p439). Qualitative research normally talks about data saturation where data collection can be stopped once new information is no longer identified and when only repetitions are noted (Wray, Markovic and Manderson, 2007).

Reliability and Validity

As being suggested by Yin (2009, 41) in judging the quality of a case study research design, in this study the researcher did construction of validity where multiple sources of evidence and establishing the chain of evidence are done in data collection phase, while key informant(s) will review the draft case study report in the composition phase. This will reduce bias and increase validity in guiding an insightful indulgent of leadership attribute that enable the analysis of the values and assumptions in implementation of green innovation within the organizations (Yauch & Steudel, 2003; Wray, Markovic and Manderson, 2007).

This was also highlighted by Creswell (2007) that in order to enhance the accuracy of findings, triangulation and member checking are used as the validity strategy. Triangulation of data means data will be collected through interview and focus group discussion. Member checking reflects the role that play by an assistant to the researcher during the focus group discussion who will serve as a checker to validate the analysis process (Yauch & Steudel, 2003). The transcribing process for focus group discussion was done together by researcher and the assistant in order to avoid any discrepancies or divergence of understanding the audio before writing it down in text form.

The goal of reliability is to minimize the errors and biases in a study (Yin, 2009, 45), and the researcher's approach is consistent across different researchers and different projects (Gibbs, 2007). In the case study, the tactics to avoid the shortcoming are through applying the case study protocol to deal with the documentation problem in detail and a development of a case study database (Yin, 2009, 45).

It is common in qualitative research that opt constructivist paradigm to replace the usual positivist criteria of internal and external validity, reliability, and objectivity with the terms such credibility, transferability, dependability, and conformability (Denzin & Lincoln, 2000, 21).

Verification

The verification of the data in the interview and focus group discussion were verified during the interviews with the respondents. The researcher explained the terms used and what were the meaning of the questions asked to them. Through this verification process, the right answers will be obtained pertaining to the questions asked and elaboration to none of the scope of the questions by the respondents in the focus group discussion was much easier to control with everybody understanding and cooperation.

Data Analysis

A major strength of case study data collection is the opportunity to use many different sources of evidence (Yin, 2009) that has advantage on the development of converging lines of inquiry. Thus any case study finding or conclusion is likely to be more convincing and accurate if it is based on several different sources of information. The recorded interviews and focus group discussion were transcribed into written text. The transcribing process for the interviews and discussion took two weeks and three weeks respectively. The recorded tapes were listened at least three times to ensure the important points were captured. Verbatim transcriptions require repeated listening and reviewing of the entire transcripts to ensure accuracy (Wray, Markovic & Manderson, 2007)

The documents used in this study were reports, newspaper and multimedia articles related to the GLCs businesses operations and endeavors. These data adopted the hermeneutics approach. According to Ricoeur cited by Heracleous (2007), hermeneutics is defined as the art of interpreting texts, posing as a fundamental concern that once discourse is inscribed as text, it is severed from its author, and its meaning as interpreted by new audiences may not necessarily coincide with the author's original intentions. Thus the ideal intention of hermeneutics is to discover new avenues to understanding. Yauch and Steudel (2003) believed one or more of the data collection from same techniques may not add significant information to results or interpretation. Thus due to this reason

they recommended at least three different data collection methods are used to ensure that enough data is available for triangulation. The employment of various strategies can also prevent researcher from burnout (Wray, Markovic & Manderson, 2007).

Triangulation is defined as measuring the same concept using two or more methods (Kadushin, Hecht, Sasson & Saxe, 2008) or data from multiple sources of information (Bailey, 12007) which are particularly useful when the topic of study is very complex or controversial, or requires a holistic view (Litosseliti, 2003). Yauch & Steudel (2003) found the results are more robust, reduce bias and increase validity in leading a deeper understanding of leadership attributes that enable the analysis of the values and assumptions in green innovation implementation within the organizations. Although triangulation contributes directly to the analysis of the phenomenon being measured, it also serves as a building block for the incorporation for qualitative data (Kadushin, Hecht, Sasson & Saxe, 2008).

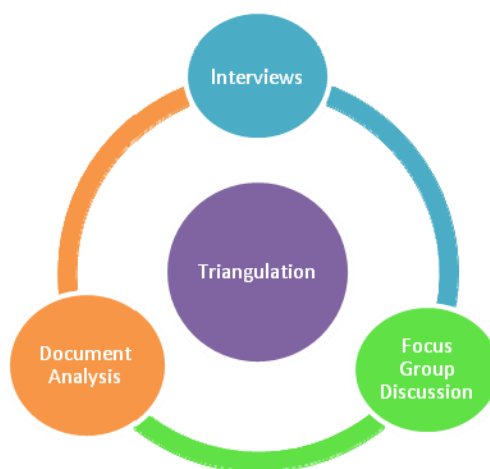


Figure 3. The triangulation of data from many sources

The result of the data analysis is similar ideas, thoughts, and concepts emerged from the participants. The patterns that emerged from participants were sorted within the data, separated into categories, and clustered into themes. A qualitative analysis software tool called NVivo 7 was used to analyze, manage and shape the transcribed and hermeneutics data. It helps the researcher to manage, store and retrieve the data that kept in its secured database. The database and files are put together in a single file for easy manipulation, and can display the emerged codes and categories graphically. The codes and themes can be continually moved around and reorganized under new categories of information as the project progresses. The tool also provides the capability to

write memos and store them as code so that the researcher can begin to create the qualitative report during data analysis or simply record insights as they emerge during the data analysis (Creswell, 2007, 167).

4. RESULTS

The themes emerge from the data are tabulated below.

Initial	Themes
LdQua	<ul style="list-style-type: none"> • Leader's Qualities describe the attributes and characteristics that the top management should possess (either already born with them or through transformation) for them to be competent and efficient in understanding the current financial and investment market, new customer demand, new regulatory
NormP	<ul style="list-style-type: none"> • Normal Practice describes the normal activities, perceptions and decision making done by the top management in the organizational strategies and operation that restrict the organization to venture into new change and innovation.
DevLd	<ul style="list-style-type: none"> • Developing Leaders suggests ways the future and current top management should be groomed and prepared for new business challenge through gradual assessment, new skills and knowledge within and outside organization, at regional and global level
Inno	<ul style="list-style-type: none"> • Innovation refers to the needs and necessity that top management should act upon for the survival, success and sustainability of their organization. It is placed at high rank in the organizational strategic planning.
GI	<ul style="list-style-type: none"> • Green innovation is defined as an innovation that is related to green products or processes, including the innovation in technologies that are involved in energy-saving, pollution-prevention, waste recycling, green product designs, or corporate environmental management that is identified as current effective innovation to reduce operational cost, improve corporate image and branding to the customer perceptions, and corporate social responsibility. Administration and Operation/Production are the places where technological change is directly involved and stakeholders (top management, employees, customers, users, community) need to adapt and learn to use the new innovation.

Ld Role	<ul style="list-style-type: none"> • Leader's Roles reflects the responsibility of the top management in running the organization – they must attention to details on the financial and investment issues, groom talents from the inside to shoulder the future organization leadership, sensitive to sustainability issue (people, planet, profit), admit and react fast to failure
Cult	<ul style="list-style-type: none"> • Culture has very much concern on the value systems of certain races to success, working culture, work ethics, gender bias that top management should influence through motivation and behaviours to ensure organization can success and sustain. The young executives, Generation Y, are so eager to be at the top that less exposure and experience at certain corporate levels might bring disadvantage for them when they are at the top.
GLCsChl	<ul style="list-style-type: none"> • GLCs' challenges show the challenges the top management leadership of GLCs face that at some points are different from Multinational Companies (MNC) or Small-Medium Enterprise (SME) in terms of vision, strategies and directions. GLCs, as the government investment arms, need to balance between strategies and political will because they are labeled as national companies that carry national aspiration.

Eight themes have been emerged from the interviews and focus group discussion – Leader's Qualities (LdQua), Normal Practices (NormP), Developing Leaders (DevLd), Innovation (Inno), Green Innovation (GI), LdRole (Leader's Role), Culture (Cult) and GLCs Challenges (GLCsChl). Those themes identified above are not yet finalized and data will be collected continuously until no more new or additional data emerges from the rigorous document analysis. The triangulation of the data is not yet done as rigorous document analysis is still in the process.

5. CONCLUSIONS

This study is aim to understand the top management leadership attributes in the GLCs with current situation that focus on environment preservation. Green innovation implementation in the administration and operation/production across the organization is targeted to reduce cost, improve corporate branding and make process more efficient. Two interviews with a prominent statesman and a head of Multinational Companies (MNC), and a focus group discussion with the top managers have been conducted in order to get the full views of the issues faced in the organizations. Then documents published related to the green innovation in and by GLCs are being collected. The emerging themes from the data show that eight themes are identified by the top management as being crucial for their

leadership attributes with regards to green innovation. Top management must have all the best attributes but the success is very much depending on how their leadership attributes is tailored and changed with the current situation and future demands. At this moment all the data collection is not yet being triangulated with document analysis.

REFERENCES

- Berhad, K. N. (2010). What are Government-Linked Companies (GLCs) Retrieved January 2, 2010 from <http://www.khazanah.com.my/faq.htm#ques8>
- Bryman, A., & Bell, E. (2007). *Business research methods* (2nd ed.). New York: Oxford University Press.
- Bryman, A. (1984). The debate about quantitative and qualitative research: a question of method or epistemology? *The British Journal of Sociology*, 35(1), 75-92.
- Creswell, J. W. (2007). *Qualitative inquiry & research design: choosing among five approaches* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Chance, D., & Ahmad, R. (2009). Interview – Malaysia PM to offer CO2 reductions in Copenhagen. Retrieved 5 May 2010, from <http://in.reuters.com/articlePrint?articleId=INIndia-44679920091213>.
- Chen, Y.-S., Lai, S.-B., & Wen, C.-T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331-339.
- Daft, R. L. (1978). A dual-core model of organizational innovation. *Academy of Management Journal*, 21(2), 193-210.
- DeGraff, J., & Quinn, S. E. (2007). *Leading innovation: how to jump start your organization's growth engine*, McGraw-Hill.
- Denzin, N. K., & Lincoln, Y. S. (2000). Introduction: the discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Erantis.com. (2009). Climate conference in Copenhagen 6-18 December 2009. Retrieved May 5, 2010 from <http://www.erantis.com/events/denmark/copenhagen/climate-conference-2009/index.htm>.

- Flick, U. (2002). Qualitative research: state of the art. *Social Science Information*, 41(1), 5-24.
- Gibbs, G. R. (2007). Analyzing qualitative data. In U. Flick (Ed.). *The Sage qualitative research kit*. London: Sage Publications.
- Green, K., Morton, B., & New, S. (2000). Greening organizations: purchasing, consumption, and innovation. *Organization & Environment*, 13(2), 206-225.
- Hannah, S. T., Uhl-Bien, M., Avolio, B. J., & Cavarretta, F. L. (2009). A framework for examining leadership in extreme contexts. *The Leadership Quarterly*, 20, 897-919.
- Heracleous, L. (2007). Hermeneutics. *International Encyclopedia of Organization Studies*. Retrieved April 23, 2010, from http://www.sage-reference.com/organization/Article_n203.html
- Herachleous, L. (2007). Interpretive Theory. *Encyclopedia of Organization Studies*. Retrieved April 23, 2010, from http://www.sage-reference.com/organization/Article_n247.html
- Kadushin, C., Hecht, S., Sasson, T., & Saxe, L. (2008). Triangulation and mixed methods designs: practicing what we preach in the evaluation of an Israel experience educational program. *Field Methods*, 20(1), 46-65.
- Leighton, A. (2007). *On Leadership: practical wisdom from the people who know*, London: Random House Business Books.
- Litosseliti, L. (2003). *Using focus groups in research*. London: Continuum.
- Murray, P., & Blackman, D. (2006). Managing innovation through social architecture, learning, and competencies: a new conceptual approach. *Knowledge and Process Management*, 13(3), 132-143.
- Ramirez, C. D., & Tan, L. H. (2004). Singapore Inc. versus the private sector: are government-linked companies different? *IMF Staff Papers*, 5(3), 510-528.
- Stake, R. E. (2000). Case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Turner, M. J., & McKnight, J. (2008). *IT powers green business*, The Enterprise Strategy Group, Inc.

UNFCCC. (2009). The Kyoto Protocol, Retrieved May 5, 2010, from http://unfccc.int/kyoto_protocol/items/2830.php

Vitale, D. C., Armenakis, A. A., & Field, H. S. (2008). Integrating qualitative and quantitative methods for organizational diagnosis: possible priming effects? *Journal of Mixed Methods Research*, 2(1), 87-105.

Wray, N., Markovic, M., & Manderson, L. (2007). "Research saturation": the impact of data triangulation and intensive-research practices on the researcher and qualitative research process. *Qualitative Health Research*, 17(10), 1392-1402.

Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods*, 6(4), 465-481.

Yin, R. K. (2009). *Case study research: design and methods* (5th ed. Vol. 5). Thousand Oaks, CA: Sage Publications.