

Sustainable Housing Development and Leadership: A Review

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Abstract: The study of the leadership qualities in sustainable housing development is limited to a relatively small body of knowledge. Although there is considerable research available on sustainability and housing industry, few researchers have considered the importance of leadership in achievement of sustainable development. In the domain of sustainability, it seems the leadership can play a major role in promoting sustainable development practices. As a result, an understanding of leadership and its style seems necessary in order to achieve sustainability and development. This paper presents a review of the published works that linked the key words of sustainability, housing industry and leadership styles and qualities. Furthermore, discussions and findings have been presented to demonstrate the current sustainable housing development practices in Malaysia and find the most probable leadership qualities for sustainable development. Furthermore, the effects of transformational leadership on sustainable development practices have also be considered and discussed by the study.

Key words: Sustainability; Housing; Sustainable Housing Development; Leadership; Transformational Leadership; Malaysia.

INTRODUCTION

The construction industry, particularly the housing sector, can play a crucial role on sustainable development in both developed and developing countries. Many researchers have discussed on different aspects of sustainability, particularly in the construction industry. Accordingly, a variety of definitions and interpretations on housing and sustainability can be found throughout the literature. For instance, Maliene and Malys (2009) consider the housing as a key issue for delivering healthy and attractive to the community. They emphasize on well available, high-quality, economic, ecological, aesthetical design, comfortable and cozy aspects of sustainable housing to better suit the needs of a person. Furthermore, they consider the sustainable housing as a housing planned in a clever way. According to them, sustainable housing should be able to create high-quality in technical and supply level, economic opportunity to cover purchase and exploitation expenses for greater number of house-holds, ecological aspects in energy saving, ecological building materials, and comfortable and cozy as the social-psychological aspect. Goebel (2007) puts a growing concern on the social and environmental sustainability of housing programs and the impacts upon both the surrounding environment and human health. In addition, some other research concentrated on the amount of pollution and energy consumption of the industry. For instance, World Energy Outlook in 2011 states that of the global energy consumption, 70% occurs in cities and 80% of Green House Gas (GHG) emissions also emanate from cities. Buildings have accounted for 17% of world's fresh water withdrawals, 25% of world's wood harvest, and 40% of world's materials and energy flows. Although scientists have not yet conclusively determined the absolute capacity of our ecosystem in acting as a sink for pollutants, construction activities have long had a devastating impact on the local environment and the capacity of societies to survive (Jefferson, 2006).

A considerable sustainable housing development, however, has promoted over the last 30–40 years, but many of the novel ideas and innovated practices have not been widely employed (Seyfang, 2010). Some novel ideas in sustainability come through the aspects such as design parameters of the sustainable housing projects, reducing the amount of pollutant and waste produced by the industry, procedure of affordable housing, etc. In contrast, less attention has been given to the leadership and management practices in order to achieve sustainability. Accordingly, without effective management and leadership practices we will not reach to our target of sustainable housing development. It may also be the reason of the novel ideas and innovated practices of sustainability have not been widely diffused. In this regard, Sze'kely and Knirschm (2005) observed that "many companies have initiated a variety of sustainable development initiatives to address the demands and expectations of society. Although most analysts argue that these initiatives contribute to making businesses more profitable, there are many managers who are not yet convinced of the validity of this argument." They concluded that the reason is that most sustainable development initiatives have been developed in isolation of business activity and are not yet directly linked to the management and leadership strategies of the companies. One way to strengthen the sustainable development initiatives is, therefore, to measure the extent to which a

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company's performance increases as a result of effective leadership and management practices towards sustainable development. However, leadership and management practices may show a constructive impact on facilitating sustainability in the construction industry, particularly in housing projects. Although clarifying leadership is a complicated and difficult phenomenon largely because of the nature of leadership itself is complicated, the study tries to explore the effective leadership style and quality for sustainable development in the housing industry by evaluating the existence literature.

Based on previous studies, one of the leader's purposes is that transforming the subordinate as well as influencing them to achieve better performance (Tabassi *et al.*, 2012; Northouse, 2007; Purvanova and Bono, 2009). In sustainable housing development, a leader by his/her leadership style and the quality of managing the project as well as the subordinates can transform the project toward sustainability and obtain better productivity in performance.

Unlike the developed countries, the awareness on sustainability issues in the construction industry of developing countries is still low and developing countries like Malaysia have only just began to address the challenges of sustainable development in the construction industry as a whole. Research on housing sustainable development and leadership phenomena in the industry can make a constructive impact on sustainable development of the projects and draw a future plan for effective performance for construction housing sectors of the country. Unfortunately, not enough research has been conducted on leadership styles and the quality practices in sustainable development, particularly in Malaysian housing companies. As a result, the research aims to make a roadmap to study the proper leadership styles of the leaders toward sustainable housing development.

Sustainability:

Sustainability has developed from philosophical concerns about individual's responsibility for natural environment (Passmore, 1974), into locally, nationally and internationally based environmental groups demanding more concern for the environment (Lowe and Goyder, 1983). The first definition of sustainability, which was presented by Brundtland (1987), defined it as "a development that meets the needs of the present generation without compromising the ability of future generations to meet their needs". The adoption of the word "sustainable" in the context of development by balancing present and future needs is adopted in the Cocoyoc Declaration (1974) nearly 38 years ago (cited in Jefferson, 2006). Thereafter, sustainable development as a broad term has been interpreted in many ways. Goebel (2007) defines "sustainable development" as human development that promotes human well being in the present without compromising ecological integrity over the long term. DEFRA (2003) defines sustainability as a continuous economic and social progress that respects the limits of the "Earth's ecosystems", and meets the needs and aspirations of everyone for a better quality of life, now and for future generations to come. He further states that sustainable development requires the decoupling of economic activity from environmental impact, while maintaining cohesive, inclusive communities. Due to the complex nature of sustainability, there is no consensus definition of the concept. Hawken (1994) defined sustainability as an "economic state" where the demands placed upon the environment by humankind and economics and trades can be fulfilled without reducing the ability of the environment to supply the required resources for future generation. It is thus a social objective, achievable only where all areas of society cooperate in fulfilling the associated demands. Sustainable development is, in turn, a basic prerequisite for sustainable economic and environmental as well as social development. Accordingly, contribution required from the various areas of human activities for the achievement of sustainable development (Zimmermann *et al.*, 2005). In this regard, there is growing concern to the social and environmental sustainability of housing programs and the impacts upon both the surrounding environment and human health by practitioners (Goebel, 2007).

On the other hand, Moffat and Auer (2006) assert that the systematic integration of economic, environmental and social objectives require three particular market conditions. There are include of regulatory supports and economic initiatives that enforce standards and reward progressive sustainable behavior (it may come from the government), companies with access to required skills and tools to integrate sustainable development into their business strategies, and a broad-based understanding and use of protecting environmental performance information in decision-making by consumers, developers and investment communities. To take full account of sustainability principles, a determination of any development activity must, therefore, reflect social (including ethical) and economic, as well as ecological, factors (Shriberg, 2000).

To sum up, sustainability has regarded to build a society in which a proper balance is created between economic, social and ecological objectives. It also means adopting and pursuing ethical business practices, creating sustainable jobs, building value for all the company's stakeholders and attending to the needs of the underserved.

Sustainable Housing Development:

Heightened awareness of the need for sustainable development emerged in international and national debates since the early 1970s. Since then, the promotion of sustainable development strategies have been shaping the vision and mission of all business sectors including housing industry towards sustainable practice, which works for the balance between economic, social and environmental performance. With the Brundtland Commission report published in 1987 a framework for sustainable housing development has been emerged in the construction industry. Based on the framework, sustainable housing development plays a major role in the human impact on the natural environment and on the quality of life. Other researchers have also been considered the housing as a sector with an ability to satisfy high levels of human needs as well as the sustainable development requirements (Hartshorn *et al.*, 2005; Oktay, 2002; Maliene and Malys, 2009). For instance, Oktay (2002) acknowledged that housing not only satisfies the basic need for shelter, but also satisfies other requirements for sustainability. He further considers sustainable housing as a holistic policy which proactively considers the broader issue of the global environment together with local tradition.

On the other hand, it is an aspect of the community's residence region with its own "social", economic, and "spatial" environment, in which exist variety forms of houses with different architectural and engineering shape and designs. However, based on the Laws of Malaysia ACT A1289 "housing accommodation" includes any building, tenement or messuage which is wholly or principally constructed, adapted or intended for human habitation or partly for human habitation and partly for business premises. Accordingly, this definition of housing has used entire the study.

A house or an apartment is usually the largest purchase throughout the entire life of a person or a family. It has considered as the guarantee of human rights by fulfilling one of the major personal needs and desires and influencing quality of life. Therefore, one of the current goals today is to study of sustainable options for housing from the economic, social-psychological and ecological point of view and to accumulate the global experience and apply it in a creative way in order to reach higher standards of economic and social welfare. Moreover, housing premises must be set out according to the conditions of that locality and must meet the established technical and hygienic requirements (Maliene and Malys, 2009). To achieve sustainable housing, Nelms *et al.* (2005) believe that the replacement of traditional construction methods and technologies with those that reduce the ecological, health, and environmental life cycle impact are also required to initiate the application of sustainable development principles in the design, construction, and operation of buildings.

The promotion of sustainable practice in housing development has resulted in the development of various green strategies especially for improving environmental performance in the process of housing development (Zhang *et al.*, 2011). The promotion of green strategy in housing development has significant contribution to the implementation of sustainable development principles. Deb *et al.* (2000) suggest that "investing in green housing can achieve not only high standards of environmental performance but also social performance, which can help build advantage to attract customers". Gondring and Lammel (2001) define the characteristics of a modern sustainable housing in their study. They see an apartment or a house as a place for family from a social point of view in sustainable housing development. From a functional point of view, they considered an apartment or a house as a place for leisure activities and rest, not for professional activities. From a social-psychological point of view apartment or house is a place for privacy and intimacy. Finally, they view it as an article, which can be reclaimed during purchase or rent, from economic point of perception.

As a result, sustainability in the context of housing development is a complex, controversial, and challenging phenomena. The definition has gone through many interpretations with different practitioners; but subsequent interpretations emphasize that a sustainable house should be a cost-efficient over its lifecycle, comfortable, cheap to maintain and comply with the physical and bio-cultural aspects of the environment.

Parameters of Sustainability in Housing Projects:

Obtaining proper information about overall condition of a building and comply it with sustainability requirement needs analysis of the components and tools for quantification of the results (Cukovic and Ignjatovic, 2006). The most crucial element of sustainable housing's effort is the multitude of suggestions for bridging the gap between housing's current situation and its vision for the future (Shriberg, 2000). Each country and region has its own climatic conditions and cultural patterns, which must be the basis for the solutions in each individual case. In fact, each country or region has a traditional settlement and building form or 'vernacular architecture'. Therefore, the management of the industry should consider all the related parameters to sustainable housing development based on the condition and cultural aspects of the region. For instance, protection from sun and heat plays an important role in the areas with a hot climate during the summer months, while the problems of areas with a cold climate are quite different (Oktay, 2002). The buildings should be considered in relation to the site conditions, project environment and cultural aspects. Other aspects such as aesthetics, over shading, self-shading, climatic variations, vegetation and pollution should also be considered for sustainable housing projects (Edwards, 1996).

Lovell (2004) defined sustainable housing as 'energy efficient' or 'low carbon' housing. In this regard, Seyfang (2010) states clearly the technologies and designs to deliver lower zero carbon homes. Furthermore, during construction, maintenance and end of life of construction projects, there are lots of other pollutions and bad effects on the environment. For instance, the industry consumes more than 50% of extracted materials, produces 180 Million tons of waste production every year, and causes site related nuisances such as traffic, noise, etc. Therefore, the management of the industry should address all the conditions and attitudes of sustainability within design, construction and maintenance of projects.

To sum up, for housing industry, sustainability involves sustaining and expanding financial growth, shareholder value, prestige, corporate reputation, relationship with customers and their satisfactions, comfortable and cozy of the product, easy maintenance and the quality of services, reduce the waste production, reduce pollutions, recycle the materials, minimize the usage of natural and extracted materials, and efficient consumption of energy and water supply.

Current Sustainable Housing Practices in Malaysia:

Malaysia as one of the most rapidly developing countries among developing nations has experienced accelerated housing and urban growth since the 1950's. The housing industry is one of the major industries that contribute to Malaysian economic growth. The industry represents nearly 3-5% of Malaysia's Gross Domestic Product (GDP) and provides employment for about 10% of the total labour force (Malaysian MOF, 2009). This also caused the mega cities of the country such as Kuala Lumpur and Penang have experienced of rapid population growth in the past decades. Accordingly, about 65% of the total population of the country is concentrated in urban area in Peninsular Malaysia including Kuala Lumpur, Penang and some other metropolitans. Rural-urban migration is also contributing towards such urban growth. However, the pressure of urban population on the urban areas has suffered several housing problems to the industry. Accordingly, housing industry plays a prominent role to the growth of the country's economy in terms of employment, financial capital wealth, share market, consumption, and capital investment. At the global front, next to the increasing uncertainties in the technology, budgets and development processes (Chan and Chan, 2004), increasingly integrated financial market *also* stimulates the local housing market to be more dynamic (Otrok and Terrones, 2004). In this dynamic environment, managing the housing industry in today's environment is increasingly difficult.

Agenda 21 of the United Nations Conference on Environment and Development (UNCED) recommended that countries with the assistance of international organizations develop, apply and institute the necessary tools for sustainable development including developing quality-of-life indicators covering, for example, health, education, social welfare, state of the environment, and the economy (UN 1993). Afterwards, the policy on sustainable development was clearly articulated in the 7th Malaysian Plan. The Plan outlined new measures to enhance Malaysia's ability to develop sustainability. Thereafter, in case of housing section in sustainable development practices, Malaysian government through the Tenth Malaysian Plan (2011-2015) focuses on streamlining the affordable housing delivery system, strengthening efforts to deliver high quality and environmentally sustainable housing, and cultivating a healthy and sustainable housing industry. Accordingly, the Government, through the Construction Industry Development Board (CIDB), will encourage housing providers to be accredited, particularly for the usage of skilled and qualified labour and improved construction processes toward sustainable housing development. In line with the above, it should be considered that the Malaysian government had been encouraging the development of sustainable housing since year 2006 in Ninth Malaysian Plan. In addition, the Government introduced a new policy which is called the National Green Technology Policy in 2009. The policy aims to lead the country towards energy efficiency and sustainable development, particularly in housing industry. The Government also provides incentives for the developers to develop green home in Malaysia. For instance, the planning approval of sustainable house is easier to obtain compared to the planning approval of conventional home (Alias *et al.*, 2010). As a result, in order to achieve the targets of the sustainable housing development in the country, management of the industry can play a critical role. Based on this, the study is focused on leadership and management practices of the leaders toward sustainable housing development, particularly in Malaysia.

In Malaysia, the impetus to develop Sustainable Development Indicators (SDI) was initiated in 1995 when Institute for Environment and Development of the country (LESTARI) developed a work program for its inaugural year. Work was initiated to review the status of sustainable development indicator initiatives world-wide and to prepare a detailed approach to the development of a Malaysian national program on SDIs. Two monographs were published by LESTARI in 1997 (Peterson 1997a and 1997b) on the subject of indicators of sustainable development in industrializing countries. In case of green building, Malaysian Institute of Architects (PAM) formed a Sustainability Committee who was tasked primarily to develop and set-up the Green Building Index (GBI) and the accompanying Panel for certification and accreditation of Green-rated buildings in August 2008. The GBI Residential Rating tool evaluates the sustainable aspects of residential buildings based on six key criteria:

- Energy Efficiency (EE)
- Indoor Environment Quality (EQ)
- Sustainable Site Planning & Management (SM)
- Materials and Resources (MR)
- Water Efficiency (WE)
- Innovation (IN)

The above criteria encourage developers and home owners to consider the environmental quality of homes and their inhabitants through better site selection, provisions of public transport access, increased community services and connectivity, as well as improved infrastructure.

However, a lack of practices of effective leadership and management in housing development activities may often bring about physical and bio-cultural affects to the environment, health and quality of life. These issues are often raised today as problems of uncontrolled development of sustainable housing growth, particularly in Malaysia. Furthermore, the issue of sustainable housing development is still new and not enough practiced in the country (Kamaruzzaman *et al.*, 2011). Regarding the practices of housing industry in the past decade, those houses were not meeting the essential criteria of sustainability (Begum and Pereira, 2010; Kamaruzzaman *et al.*, 2011; Musa *et al.*, 2011). Accordingly, more research needs to be conducted on this issue, especially with regards to housing in Malaysia, to enable standards to be optimized for the benefit of the developers as well as the occupants.

Sustainability and Management:

Management for sustainable development is basically different from traditional environmental management practices, which has more emphasized on systemic change in addition to productivity improvement metrics (Richards and Gladwin, 1999). According to Shriberg (2002) a management system for sustainability should integrate the organizational culture and its environment with ecological and social systems by considering the triple bottom line of environment, society and economic consequences. Furthermore, they find that the alignment of organizational management systems with the principles of sustainability requires complex approaches to operational and staff management practices. While the task of developing standards for sustainable development, particularly in housing industry, has been involved the scientific, governmental, corporate, and nongovernmental communities, the responsibility for ensuring a sustainable housing development will fall largely on the shoulders of the managers and leaders of the industry.

Making decision in managing for sustainable housing development may along with ambiguities, tradeoffs as well as cost increments. Nevertheless, management for sustainable development is worthwhile and necessary in both the short-term and long-term goals of the industry. In this regard, studies in housing industry show that the focuses on the environmental aspects of sustainability management explicitly recognizes social and economic issues as important in decision-making (Elkington, 1998; Shriberg, 2002).

However, a sustainable management system aims to eliminate negative ecological consequences and possibly, to restore the environment. Accordingly, a creative and ecologically smart manager and/or leader can reduce operational costs, promote the quality of services, reduce waste and ecological impacts, and improve the company's economics (Shriberg, 2000). In contrast, inefficient management of sustainability, particularly in housing estate planning and construction, caused inadequate infrastructure investment and create constraints for environmental cohesion (Chen *et al.*, 2005).

Shriberg (2002) recommends that the management for sustainability in housing industry should be altered in two ways. First, building from current mission and goals statements in housing organizations should be changed to reflect sustainability. Second, he founds that a freestanding "sustainability mission and goals statement" is critical in starting management for sustainable housing development. Accordingly, the most crucial component in executing a sustainability agenda is to conduct long term management decision making based on social and economic aspects of sustainability.

Some of the internal factors, which favoring the adoption of a sustainable approach toward management operations of the industry have been summarized in Table 1.

Leadership:

Various definitions of leader and leadership can be observed in literature. For instance, Cole (1996) defines leadership as a dynamic process in which one individual influences others to contribute to achievement of the group task. Murphy (1996) defines leaders as people "to whom others turn when missions need to be upheld, breakthroughs made and performance goals reached on time and within budget". Furthermore, Murphy suggests that leaders "transcend the problems of the moment to reveal the possibilities of human nature through intelligence and perseverance". Leadership is also observed as an influence relationship among leaders and followers who intend real changes and outcomes that reflect their shared purposes (Rost and Barker, 2000). Consequently, the term leadership means different things to different people. Although no ultimate definition of leadership exists (Yukl, 2002), the majority of definitions of leadership reflect some basic elements, including

“group”, “influence” and “goal” (Bryman, 1992). Despite these multitudes of ways that leadership has been conceptualized, the following components can be identified as central to the phenomenon of leadership from the above definitions:

1. Leadership is a dynamic process;
2. Leadership involves influences, intelligence and perseverance;
3. Leadership occurs within a group context;
4. Leadership intervenes in personal exploration and development; and
5. Leadership involves goal attainment on time, within budget, and specific quality.

Based on the above components, the following definition of leadership is developed by the study. Leadership is a dynamic process whereby a leader by his intelligence and perseverance influences a group of subordinates to develop their potential in order to achieve the organizational goals within certain time, budget and quality.

Table 1: Internal factors of a sustainable approach toward management operations of the industry.

Managerial Factors	Operational Factors	Economic Factors	Cultural Factors
<ul style="list-style-type: none"> - Assessment of organizational structures and management procedures - Developing incentive mechanisms to promote sustainability initiatives through the staff and workforces - Increasing the sustainable performance of the company - Early identification of potential business opportunities - Recognition of emerging risks, potential threats and management failures in sustainable environments - Better risk management, lower risk levels - Improvement in workers' safety and the quality of labor recruitment and retention 	<ul style="list-style-type: none"> - Identification of environmental problems -Minimization of environmental footprint - Reduction of material inputs - Achievement of energy efficiency - Sustainable operating licenses (LEED, GBI* , BREEAM, etc) - Reducing the waste productions 	<ul style="list-style-type: none"> - New market opportunities - Cost savings - Technological innovation - Property market set for healthy growth - Reduction of unemployment rate 	<ul style="list-style-type: none"> - Nature of the project and its surroundings - regional and cultural aspects - Clients' cultural aspects and requirements - Project access route

*Green Building Index, Malaysia

Integration of Leadership and Sustainability:

Sustainable housing development demands decision making to take place with success from the leadership/management level at the company stage and the government level at the other juncture (TIPPLE, 1996). Disclosure and transparent information on corporate environmental practices and performance have been considered as fundamental parameters to enable the decision-makers to make informed choices on sustainable development practices (Moffat and Auer, 2006), particularly in housing industry.

Leadership and company vision have been defined as critical success factors that a company needs to fulfill to achieve sustainable performance (Szekely and Knirsch, 2005). In this regard, the full and honest commitment of leader to sustainability and the adoption of a management incentive scheme can result in a good sustainability performance. The top management of a company (leader) by sending the right signals of sustainable housing development practices as well as setting a road map in how sustainable principles are followed will promote sustainability in the company and its projects. Top management needs to provide a sustainable management system by motivating and training subordinates on sustainability issues in the industry to drive performance towards sustainable development. In this regard, setting apposite objectives, coordinating, monitoring and controlling progress, and optimizing the processes of the project, when necessary, can facilitate the achievement of sustainable development and build credibility for the company and the management. Key top managerial staff must be also committed to the sustainability goals and objectives, and companies must ensure that sustainability values and vision are not only integrated into business strategy, policies and culture, but also communicated to all employees.

Setting sustainable performance targets, which are made up of the company’s operating principles, systems of measurement and controlling, can improve the overall performance of the company (Szekely and Knirsch, 2005). Sustainable performance targets can be mainly based on projects environmental impacts such as natural resource depletion, land degradation, pollution emissions, energy consumption and waste generation as well as on the long-term environmental impact of project operations. In addition, the assessment of the social impact of the projects, however, seems a more difficult task and much less developed than the assessment of economic and environmental performance.

In case of the social impact, the Malaysian construction companies, in today’s highly competitive environment, should focus on their employees’ motivational initiatives, training and developing workforces,

improving labor practices, reducing accidents at workplace and employing more ethnically (Malay, Chinese, Indians, etc.) diverse workforces in the projects.

Accordingly, strong and visionary leadership design seems essential to promote the serious internal structural changes that housing industry requires becoming more sustainable.

In addition, innovation for development in sustainability is the focus of researchers and policy makers. Innovation refers to “the successful exploitation of new ideas”, and concerned with both technological and social-behavioral changes. In this regard, the “transformational leadership” literature sees the transformational leaders as those who have the ability to conduct changes in the organization’s strategy, vision, attitude and culture (Müller and Turner, 2010), in order to advance the creativity and innovation in the products, services and technologies (Cacioppe, 1997). The transformational leadership also describes the important role of innovative niches in seeding transitions to sustainability in wider social and economic systems (Berkhout, 2002, Seyfang, 2010).

The Global Compact Initiative has identified ten principles in the areas of human rights, labour, the environment, and anti-corruption in which the efficient management of environmental, social and governance issues can contribute to create shareholder value. The ten principles are derived from the Universal Declaration of Human Rights, the International Labor Organization’s Declaration on Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the United Nation’s Convention against Corruption and enjoy universal acceptance. The four area and related principles are summarized in Table 2. Furthermore, sustainability initiatives need to be considered as an important part of a leader’s task as opposed to an external factor and a last priority (Shriberg, 2000). Although, leadership has more related to social aspects of sustainability, but it can also facilitate the economic and environmental aspects of sustainable development.

Table 2: The areas and principles contribute to create shareholder value.

Areas	Principles
Human rights	- Businesses should support and respect the protection of internationally proclaimed human rights; and - Make sure that they are not complicit in human rights abuses.
Labour	- Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining; - The elimination of all forms of forced and compulsory labour; - The effective abolition of child labour; and - The elimination of discrimination in respect of employment and occupation.
Environment	- Businesses should support a precautionary approach to environmental challenges; - Undertake initiatives to promote greater environmental responsibility; and - Encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	- Businesses should work against corruption in all its forms, including extortion and bribery.

Discussions and Recommendations:

Sustainability has been acknowledged as one of today’s most discussed issues with many implications in variety of contexts. The past three decades have seen dramatic reductions in some of the impacts of human economic activities on the environment. Despite these, there is growing recognition on environmental challenges, complexity of emerging environmental issues, and the underlying goal of sustainable development within both developed and developing countries. At the same time, a growing public awareness and understanding of environmental issues and their impact on human health and quality of life is generating higher expectations for leadership on social, environmental and economic standards and for more systematic solutions from governments, industry and other stakeholders. In response to the need for new approaches in sustainable housing development, the role of government requires some changes. Until now, the sustainable housing development aspects are mostly practiced voluntary and sometimes housing market based policies are enabled the decision-makers to surpass minimum standards by adopting a more integrated approach to environmental and social management of the industry. Accordingly, government leverage seems essential to strengthen and develop the linkages between environmental performances and long term social and economic competitiveness as well as innovation. The government should foster the markets that systematically reward environmentally responsible corporate practices (Moffat and Auer, 2006), particularly in housing industry. However, Szekely and Knirsch (2005) see the leadership as the most critical success factor for sustainability within the organization. Leadership by securing the commitment of management and developing a system of incentives can reward the staff and subordinate at all levels who develop and push for the adoption of sustainability practices. It also creates an ability to respond flexibly to change and to engage in dialogue and partnerships with different members of society.

On the other hand, the uncertain nature of the industry coupled with the difficulty and dynamic of most construction projects create daily problems for leaders and managers of the industry (Tabassi *et al.*, 2012). Although no best leadership style has been defined and addressed by researchers and professionals for the industry, it is approved that effective leadership is vital for every construction company and leadership styles and its practices are important variables having essential role on sustainability of projects. From the social aspect of sustainability, efficacious performance and remarkable work outcomes from employees are always

desirable, but they do not always happen. People normally respond well only to appropriate styles and types of leadership. The best style would lead them to work effectively. Therefore, proper leadership style of project managers and/or leaders is necessary to sustain the industry. To achieve the best performance from subordinates, the leaders should realize and employ appropriate methods of employee development. In addition, it is required for a leader to recognize the subordinates' individual needs and desires and provide a system of compensation and rewards to promote the employees.

In this regard, transformational leadership as part of "the New Leadership" paradigm (Bryman, 1992), which concerned with values, ethics, standards and long-term goals (Trope and Liberman, 2000; Harvey *et al.*, 2006; Moss *et al.*, 2009), can appraise the motivation of the followers, realize their desires and needs (Chan and Chan, 2005), and act them as full human beings. The transformational leaders are aware of the needs and desires of subordinates and attempt to assist followers attain their fullest potential. They also have the ability to bring about significant changes toward sustainability by changing in the organization's strategy, vision, attitude and culture (Müller and Turner, 2010). They also advance creativity and innovation in products, services and technologies for better sustainable development, particularly in housing industry. Rather than analyzing and controlling particular transactions with subordinates using rules, directions and incentives, transformational leadership leans on intangible objectives such as vision, shared values and ideas for the purpose of developing relationships, giving wide sense to the individual activities and affording common ground to the followers in change environments. Accordingly, transformational leadership is mostly based on the personal morals, values, beliefs and qualities of the leader rather than on an exchange process between leaders and followers. Therefore, transformational leader encourages subordinates to put in extra effort and to go beyond what the subordinates expected before (Burns, 1978). The subordinates of transformational leaders feel trust, admiration, loyalty and respect toward leaders and are motivated to perform extra-role behaviours (Bass, 1985; Katz and Kahn, 1978).

Whereas transactional leaders elevate stability, transformational leaders make considerable changes in employees as well as in organizations. Leaders can learn to be transformational as well as transactional. But in essence, transformational leadership creates greater effects than transactional leadership especially on more-demanding projects such as construction activities (Müller and Turner, 2010). While transactional leadership results in expected outcomes, transformational leadership results in performance that goes well beyond what is expected. As a result, transformational leadership may provide a better sense of social sustainability in the industry.

Next to the leadership styles and qualities, the systematic integration of economic, environmental and social objectives of sustainable development practices requires some other particular conditions. Based on the work of Moffat and Auer (2006), the government may provide regulatory supports and economic initiatives that enforce standards and reward progressive sustainable housing development entire the country. Furthermore, companies with access to required, professions, skills and tools can integrate sustainable housing practices into their business strategies, vision and mission. An ample understanding of sustainability's principles and employing of environmental protection information in decision-making by clients, developers and investment communities as well as the stakeholders is also required to provide better condition for social (including ethical) and economic, as well as ecological, factors of sustainable development.

The housing industry has highly contributed to Malaysian economic growth and provided employment for about 10% of the total labour force of the country. Accordingly, the industry has a highly competitive environment and, therefore, requires effective leadership practices for sustainable development. In case of the social sustainability, the housing companies should employ effective motivational initiatives, training and developing practices for the staff and workforces. In addition, improving labor practices, reducing accidents at workplace and employing more ethnically diverse workforces in the projects should be considered as some other required principles for developing social sustainability in the industry. Therefore, next to the novel ideas of design parameters of the sustainable housing projects, reducing the amount of pollutant and waste in the industry and producing affordable housing, strong and visionary leadership design also seems essential to promote the serious internal structural changes that housing industry requires to become more sustainable.

As stated before, the sustainable housing development is still a new issue and has not enough practiced in Malaysia. The past decade practices of housing industry also show that the houses have not meeting the essential criteria of sustainability. As a result, more research requires to be conducted on the principles of sustainable housing development in Malaysia, to improve and develop the management of the industry toward the optimization of sustainability for the benefit of the developers as well as the occupants. Some practices which can be conducted by the Government as well as the construction leaders are encouraging housing providers and contractors for the use of skilled and qualified labour to improve construction processes toward sustainable housing development, leading the industry towards energy efficiency and sustainable development practices, regulatory supports and economic initiatives that enforce standards and reward progressive sustainable behavior, and providing a broad-based information and use of protecting environmental performance for developers, investment communities, consultants, contractors and buyers.

Furthermore, managerial, operational, economic and cultural factors as the essential internal factors should be considered and applied by housing companies for the adoption of a sustainable approach toward management operations of the industry. The GBI Residential Rating tool, which evaluates the sustainable aspects of the country's residential buildings, should be further developed by the government and related agencies to encourage the leaders of the companies as well as home buyer to consider the environmental quality of homes and their inhabitants through better site selection, provisions of public transport access, increased community services and connectivity, as well as improved infrastructure.

Conclusion:

Regarding the nature of the housing industry, as a segment of construction industry, the sector is considered as one of the most dynamic and complex industrial environments by researchers as well as practitioners. Consequently, the sustainability of industry presents a challenging environment for the effective management and leadership due to these dynamic and fast changing organizational, project and skill requirements. Therefore, it seems leaders who are displaying leadership behaviors such as company managers, executives and project managers can increase the level of sustainability of the projects by applying proper leadership styles as well as transformational leadership qualities. It may also bring about performance improvements in their companies. In this regard, creating a people-oriented strategy as well as a task-oriented strategy for the business sponsored by hiring the right people and managing them well is essential to the success of construction organization. Moreover, efficacious performance and remarkable work outcomes from employees are always desirable, but they do not always happen. People normally respond well only to appropriate styles and types of leadership. The best style would lead them to work effectively. Although, there is no one "best" style of leadership for sustainable housing development, the leaders should be flexible and match their style with the requirements of the sustainable housing practices. Accordingly, it may be concluded that the construction housing companies by applying the transformational leadership practices get a better achievement of the sustainable imperatives in terms of social, economic and environmental.

It is also concluded that the Government and the construction leaders should lead the housing industry towards energy efficiency and develop sustainable practices by regulatory supports and economic initiatives. Furthermore, the study emphasizes on the managerial, operational, economic and cultural factors as the essential internal factors for the adoption of a sustainable approach toward management operations of the industry.

Research Limitations and Future Study:

The current study has some limitations that offer a direction for future research. The study has evaluated the current literature related to sustainability, leadership and housing industry, particularly in Malaysia. As a result, future study should try to address more adopted leadership style for sustainable housing development as a whole and particularly in Malaysia. Moreover, transformational leadership as high related leadership practices to sustainable development should also be considered and the quality of transformational leadership for effective sustainable achievement should be evaluated by future study. Future research should also try to address how housing companies and government should adapt to and shape the environmental and organizational settings in such a way that the context optimally stimulates sustainability imperatives through the housing projects.

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