

# ***The Management Of Sustainable Development: Malaysian Local Government's Role***

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## **Abstract**

*Over the past decade in particular, sustainable development has become an important aspect of the construction industries. There are many ways in which sustainability issues can be incorporated in to the design, construction, operation and deconstruction of buildings. Importantly sustainability represents the link between society and built environment professionals. In relation to that, this study involves a look at the human outlook and interaction with sustainability. In this study, the focus will be aimed on the role of the Local Governments and how they play their roles and affect the industry. Therefore, this study intend to look into the sustainable development. Another intended study is to provide an in-depth and better understanding the strength and weaknesses and other relevant factors that promote or hinder the Sustainable Development. This study is to contribute to the enrichment of knowledge on the role of Local Governments in Sustainable Development. Therefore, this research seeks to find out whether sustainable development is being practiced and seeks to find out what is happening with respect to issues of what, how and why things are being done with the development of Sustainable Development in building globally and in Malaysia in general.*

*Keywords: sustainable development, local government*

## **1. Acknowledgment**

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## **2. Introduction**

Local Governments today faced with a very demanding and dynamic situation in development agenda. They are now experiencing continuous challenges in term of implementation of sustainable development as in the environmental, economical and social aspect (Bond, 2010; GOC, 2004). Over the past decade, those aspects are discussed comprehensively and nowadays, as a result of this development, the interests in sustainable development are increasing. In this study, the objective will be aimed on the Malaysian local governments and it practices of sustainable development. In relation to that, the intended study is to provide an in-depth and better understanding of the influencing factors in the implementation the sustainable development. Moreover, this study is to contribute to the enhancement of current practices of the local government in sustainable development.

## **3. Background Study**

The concept of sustainable development was first proposed by the Brundtland Commission in 1972. This definition has evolved since the United Nations Earth Summit held by the

United Nations Environment Programme (UNEP) in Rio de Janeiro (1992). The characterization on the impact of economic, social and environmental development was later formally adopted universally (WCED, 1987). Accordingly, those aspects are a major concern in local governments globally when dealing with development of a country. Essentially, the sustainability in local government's practices needs to be shown in providing the services to the public.

The pillar in which sustainability stand for in the development agenda are for the economic, social and environmental aspect to be recognized and put as priority (Elkington, 1994; Adams, 2001). Those three are to be reckoned with in order for any development to be viewed as sustainable development (Koo et al, 2007). Hence, the current established concept of sustainable development gives rise to many issues regarding the physical resources required for human existence and overall quality of life for both present and future generations. Moreover, many issues are driven to guide local governments in their practices of sustainable development, as in Local Agenda 21 and Malaysia's Green Building Index (GBI). More importantly, how can local governments become an effective machinery to facilitate national growth and enhance the sustainable development? In essence, local governments must now play a more effective role in urban planning, development control and managing the urban system and its environment. It is particularly in the practices of local governments in sustainable development.

#### **4. Methodology**

Step 1 will involve in conducting a literature review and desk research. Information will be gathered from academics journal, publication, related articles, and documentary and government reports where available. While Step 2, survey method will be implemented by means of questionnaire distribution to respondent and survey data. Survey data can be collected either through face-to face interview, telephone interview or postal questionnaire. Step 3 will involve the use of quantitative method. Fellows and Liu (1997), highlight five research styles: experiment, survey, action research, ethnographic research and case study. This study is based on a combination of research methodologies. A detailed literature review, including a Web-based search and a review of academic and industrial literature, was undertaken. As has been mentioned before, this research seeks to know what is happening in the Local Government with regards to sustainable development. Moreover, it will look into the level of implementation of sustainable development. In other words, this research is interested in knowing the factors in causation of that implementation.

As Tashakkori and Teddie (1998) noted Howe (1988) of pragmatism was that quantitative and qualitative methods are compatible. Thus because the paradigm says that these methods are compatible, researcher could make use of both of them in their research. However, this research does not use qualitative and quantitative methodologies, it only use mixed techniques where the use of distribution of questionnaire and interview were chosen. (Fellow & Liu 2008) defined mix technique as triangulation study as it employs two or more research techniques, which it may reduce or eliminate disadvantages of each individual approach whilst gaining the advantages of each of the combination.

This is because this mix technique can satisfy this research on finding that sort of data and evidence on explaining what is currently happening to the sustainable development and the influencing factors it has on the implementation at Malaysian local governments. Bell (1993) states that: "Researchers adopting a qualitative perspective are more concerned to understand individuals' perceptions of the world. They seek insight rather than statistical analysis". Fagan 2003 uses a range of data, including policy document and secondary data.

Moreover, through triangulation, it will increase the chances to control and also it can gain a stronger research design.

The broad aim of this research was to obtain knowledge on the level of implementation of sustainable development in Malaysia local governments.

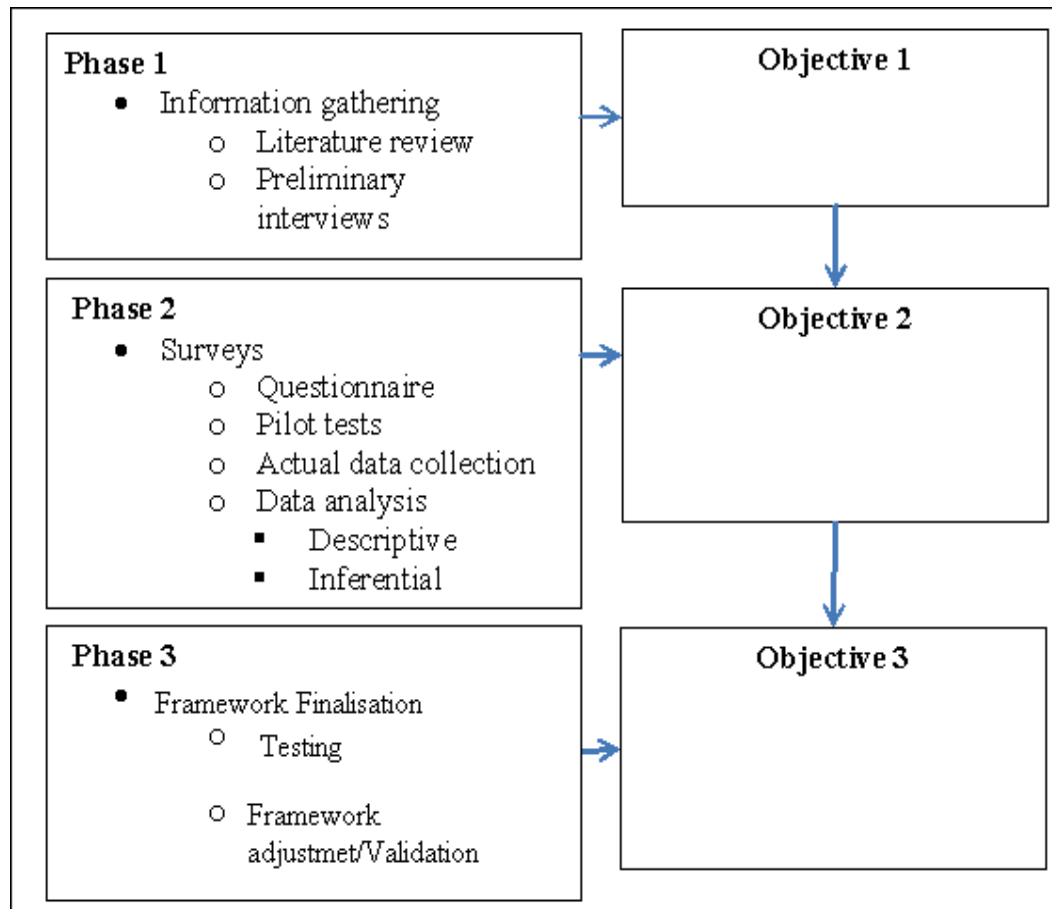


Figure 1: Methodology

In Figure 1, Literature reviews inform researchers of the background to their research projects and provide context and ideas for their studies. The preliminary information gathering was conducted by reviewing relevant literature, which helped the researcher to understand and gain a wide view of possible research problems (Cavana et al., 2001; Chua, 2006). There are good reasons for spending time and effort on a review of the literature before embarking on a research project. These reasons include; to uncover the gaps in the literature, to carry on from the point others have already reached (reviewing the field allows the research to build on the platform of existing knowledge and ideas), to identify information and ideas that may be relevant to the research, and to identify methods that are relevant to the research. From the literature findings, questionnaire was distributed to the chosen local governments and conducted for the following research purposes; to review the current practice of sustainable development in local governments and its relationship to its function and apart from that to study the relationships between implementation and influential factors influencing it.

Questionnaires require considerable effort and expense, hence it should be remembered that a poorly designed questionnaire will negate these effort (Taylor et el 2009). Therefore, developing a good questionnaire is essential, as much depends on having the right questions for analysis and asking them clearly and carefully. In order to improve the response rate, the questions were designed to be unambiguous and easy to answer by the respondents. Fellow and Liu (2003) suggest that the questions in a questionnaire should not request unnecessary data; questions need to be clear, concerning one issue only and the questions should be presented in an 'unthreatening' form appropriate to the research.

Dillman (2007) also argues that questionnaires by email or web need to have a user-friendly design because any complexity will prevent some respondents from receiving and responding to the questionnaire. A six point likert scale was employed to assess the influential factors and its elements. The scale option ranges from 1 indicating "no" to 6 "very high". The scale was chosen as it is a common quantifier and easily interpreted by the respondent (Dillman, 2000). In order to fulfill the research objectives for this research, a standard derived questionnaire was designed for the target respondent to obtain relevant information. The purposive sampling is used to get the target sample and according to Tashakkori and Teddie (1998), selection of individuals/groups based on specific questions/purposes of the research in lieu of random sampling and on the basis of information available about these individuals/groups. Hence, the subjects of this study are selected based on:

1. Local Government that promotes sustainable development. City - called City Hall or City Council (eg. Kuala Lumpur City Hall), Municipality - called Municipal Council (eg. Ampang Jaya Municipal Council) Special and modified local authority - called Corporation, Development Board, Development Authority or simply Pihak Berkuasa Tempatan.

2. Respondent selected at Local Authority based on the department that related to the issues or agenda of sustainable development which revolve around the issues or agenda in building. The department involved:

1. The Department of Regional Planning
2. The Department of Architecture
3. The Department of Engineering
4. The Department of Building and Maintenance

The department may vary at different Local Government; however the functions are fundamentally the same with different name being used. For example, some Local Authority uses The Department of Development Planning instead of Regional Planning.

3. Respondent in the selected Local Government that his/her work related to the management/policy/implementation or enforcement of sustainable development which revolve around the issues or agenda in building. The respondent chosen:

- I. Manager/Head of unit
- II. Engineer/Architect/Planner
- III. Technician/related staff
- IV. Enforcement officer

4. Respondent in the selected department at the Local Government being studied were send questionnaire. A simple sampling strategy was used to identify those staff in these departments that were to answer the questionnaire. It was not necessary to send all the staff since the simple sampling strategy would be sufficient to represent the data required for the study. Each Local Government is allocated 10 set of questionnaires each. Consideration was made that those selected to answer the questionnaire would represent a fair distribution of appropriate employees in these departments. It means that selecting people or elements from a population in such a way that each individual has an equal chance or probability of selection (Remler & Ryzin, 2011). Selection of the respondents was based on the position in the department and work scope.

## 5. Results

Since sustainable development is based on three elements namely social, economy and environment, this study is to achieve the following objectives:

1. To identify the current practice of local governments in sustainable development.
2. To study the relationships between implementation and influencing factors.

The respondents selected at city council/municipal/modified local government are based on the unit/division/department related to the issues or agenda in sustainable development.

In this section, it is to achieve objective no.1, which is to identify the current practice of sustainable development in local governments. This study divides it into individual and organization. It is to have clear view in the practice by individual as in the staff itself and the organization as a whole. Accordingly, companies face with the need to question of what they would 'like' to do and what they 'must' do when dealing with the transition to sustainable practices (WCED, 1987; Werbach, 2007). Therefore, the individual (staff) and organization must work together in the practice of sustainable development.

### INDIVIDUAL/STAFF ACTIVITIES: PARTICIPATION

Table 5.5 to 5.7 show results regarding the question to identify the current practice of Malaysian Local Governments in sustainable development, which in individual/staff activities on participation in sustainable development. This section elaborates on the practice of individual/staff in Malaysian Local Governments in sustainable development.

Table 1.1: Participate in activities, eg recycle program

Participate in activities related to SD, eg recycle program	Frequency	Percent	Cumulative Percent
No	27	9.3	9.3
Very low	225	77.3	86.6
Low	22	7.6	94.2
Moderate	14	4.8	99.0
High	2	0.7	99.7
Very high	1	0.3	100.0
Total	291	100.0	

Table 1.2: Participate in seminars, eg: SD seminar

Participate in seminars related to SD, eg SD seminar	Frequency	Percent	Cumulative Percent
No	65	22.3	22.3
Very low	185	63.6	85.9
Low	1	.3	86.3
Moderate	33	11.3	97.6
High	5	1.7	99.3
Very high	2	.7	100.0
Total	291	100.0	

Table 1.3: Participate in courses, eg: Green building course

Participate in seminars related to SD, eg Green Building courses	Frequency	Percent	Cumulative Percent
No	59	20.3	20.3
Very low	104	35.7	56.0
Low	122	41.9	97.9
Moderate	5	1.7	99.7
Very high	1	0.3	100.0
Total	291	100.0	

#### INDIVIDUAL/STAFF ACTIVITIES: ACQUIRE KNOWLEDGE

Table 1.4 to 1.6 show results regarding the question to identify the current practice of Malaysian Local Governments in sustainable development, which is on individual/staff activities to acquire knowledge on sustainable development. This section elaborates on the practice of individual/staff in Malaysian Local Governments in sustainable development.

Table 1.4: Acquire knowledge : through client/supplier contact related to SD, eg tendering

Acquire knowledge related to SD : through client/supplier contact related to SD, eg tendering	Frequency	Percent	Cumulative Percent
No	54	18.6	18.6
Very low	37	12.7	31.3
Low	187	64.3	95.5
Moderate	12	4.1	99.7
Very high	1	.3	100.0
Total	291	100.0	

Table 1.5: Acquire knowledge: through government networking related to SD, eg collaboration

Acquire knowledge related to SD : through government networking related to SD, eg collaboration	Frequency	Percent	Cumulative Percent
No	47	16.2	16.2
Very low	44	15.1	31.3
Low	178	61.2	92.4
Moderate	21	7.2	99.7
Very high	1	.3	100.0
Total	291	100.0	

Table 1.6: Acquire knowledge : through expert advice related to SD, eg consultation

Acquire knowledge related to SD : through expert advice related to SD, eg consultation	Frequency	Percent	Cumulative Percent
No	82	28.2	28.2
Very low	10	3.4	31.6
Low	151	51.9	83.5
Moderate	40	13.7	97.3
High	3	1.0	98.3
Very high	5	1.7	100.0
Total	291	100.0	

Overall, the Table above demonstrates that staffs have low percentage in acquiring knowledge on sustainable development. In view to objective no 1 which is, to review the current practice of Local Governments in sustainable development, shows that this is the current practice of Local Governments in sustainable development in how they acquire knowledge on sustainable development. As results show, they are still lacking in acquiring the knowledge of sustainable development where awareness and knowledge must be conquered first (Shafiee, 2005; Abidin & Jaafar, 2010).

Correlation studies are used to look for relationships between variables. There are three possible results of a correlation study: a positive correlation, a negative correlation, and no correlation. The correlation coefficient is a measure of correlation strength and can range from  $-1.00$  to  $+1.00$ . Positive Correlations: Both variables increase or decrease at the same time. A correlation coefficient close to  $+1.00$  indicates a strong positive correlation. Negative Correlations: Indicates that as the amount of one variable increases, the other decreases (and vice versa). A correlation coefficient close to  $-1.00$  indicates a strong negative correlation. No Correlation: Indicates no relationship between the two variables. A correlation coefficient of  $0$  indicates no correlation. Limitations of Correlation Studies: While correlation studies can suggest that there is a relationship between two variables, they cannot prove that one variable causes a change in another variable. In other words, correlation does not equal causation (Carver & Nash 2005). For example, a correlation study might suggest that there is a relationship between academic success and self-esteem, but it cannot show if academic success increases or decreases self-esteem. Other variables might play a role, including social relationships, cognitive abilities, personality, socio-economic status, and a myriad of other factors. For this research, it uses correlation between the implementation and awareness, documentation, management and resources. Table 1.11 shows that correlation is significant at the  $0.05$  level (2-tailed). It indicates that in terms of implementation of sustainable development, the respondents are more towards the development for future generation. Contrastingly, the literature reviews and preliminary interviews suggest that sustainable development is more than that as it covers wider dimensions.



Table 1.11: Correlation between level of implementation and SD according to respondent

		LI	1	2	3	4	5	6
L	Pearson Correlation	1	-.117*	.025	-.008	-.114	.008	-.086
	Sig. (2-tailed)		.047	.675	.898	.051	.892	.143
	N	291	291	291	291	291	291	291
I	Pearson Correlation	-.117*	1	.059	-.309**	-.122*	-.086	-.258**
	Sig. (2-tailed)	.047		.313	.000	.038	.142	.000
	N	291	291	291	291	291	291	291
1	Pearson Correlation	.025	.059	1	-.035	.049	-.039	-.093
	Sig. (2-tailed)	.675	.313		.552	.404	.513	.113
	N	291	291	291	291	291	291	291
2	Pearson Correlation	-.008	-.309**	-.035	1	.211**	.048	-.029
	Sig. (2-tailed)	.898	.000	.552		.000	.413	.624
	N	291	291	291	291	291	291	291
3	Pearson Correlation	-.114	-.122*	.049	.211**	1	.062	.054
	Sig. (2-tailed)	.051	.038	.404	.000		.290	.361
	N	291	291	291	291	291	291	291
4	Pearson Correlation	.008	-.086	-.039	.048	.062	1	.027
	Sig. (2-tailed)	.892	.142	.513	.413	.290		.647
	N	291	291	291	291	291	291	291
5	Pearson Correlation	-.086	-.258**	-.093	-.029	.054	.027	1
	Sig. (2-tailed)	.143	.000	.113	.624	.361	.647	
	N	291	291	291	291	291	291	291
6	Pearson Correlation							
	Sig. (2-tailed)							
	N							

LEGEND:

LI –Level of Implementation

1 - SD according to respondent (1.Development for future generation)

2 - SD according to respondent (2.Development that has impact on economy)

3 - SD according to respondent (3.Development that has impact on social)

4 - SD according to respondent (4.Development for the people by the people)

5 - SD according to respondent (5.Development that has impact on environment)

6 - SD according to respondent (6.Development that can achieve the state of sustainability)

## 6. Conclusion

Therefore, important issues such as the factors that influence the sustainable development should be addressed. Over the past decade in particular, sustainable development has become an important aspect and local government must equipped themselves with the know- how approach in handling the issues of implementing and so forth actions. There are many ways in which sustainability issues can be integrated into the practice of local government where it can influence the implementation matters.

Importantly, this chapter represents the result and findings of this study, therefore the

influencing factors in the implementation of sustainable development in Malaysian local governments are discussed.

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