1. Introduction

One of the primary challenges for local authority in the 21st century is ensuring plans and policies implemented successfully. Indeed, plans or specific policies in plans may not be implemented for a variety of economic and physical reason such as lack of funding or due to the geographical nature of the area. Within the planning profession, not much attention has been given to the relationship between planning and implementation. Thus, the actual causes of effective or poor plan implementation, remain unclear. Little improvement, therefore, can be made if there is not enough knowledge on the factors that affect plan implementation. The purpose of this paper is to identify this factor and also contributes to the existing literature by investigating the criteria for effective plan implementation and considered important by the personnel involved in implementing the plan. It uses the Comprehensive Development Plan (CDP) which formulates future strategies for South Johore metropolitan region, later branded as Iskandar Malaysia (IM). IM is one of the five future economic development corridors in Malaysia. It was established to support the achievement of Malaysia’s Vision i.e. to become a high-income economic nation by 2020. IM presents an interesting case study since the region is also served by two local plans in addition to the CDP, thus providing a scenario whereby multiple plans are used to guide the development in IM.

This study however focuses on factors that affect the outcomes of the policies and strategies in the CDP since its specific purpose is to boost the physical and economic development in the region. Unlike the local plans, the CDP was formulated by the Khazanah Nasional that is the government’s investment holding arm for the region. The CDP serves as, the vision for IM to be the hub of a dynamic growth corridor of an international standing based on its projected population growth of 3 million by 2025. There are three main themes as the foundation namely nation building, growth and value creation as well as equitable and fair distribution among stakeholders. A study on CDP land use plan implementation indicates, there are substantial areas of non-conformance as well as deviation (John et al., 2013). This research intends to examine the perception of planners as the factors contributing to such situation. The next section of the paper discusses the literature on plan implementation. The third section presents IM as the case study. The Fourth section presents a method in conducting the research. The last section will be discussing on the result of the analysis of the factors.

2. Past research on plan implementation

There is a large body of research on implementation in the field of policy, public administration and political science (Laurian et al., 2004). However, there has been lack of planning literature pertaining to plan implementation (Laurian et al., 2014; Talen, 1996; Alterman & Hill, 1978), about the linkages between plans and their outcomes, and about the causes of variation in plan implementation. One of the early studies on the implementation was by Pressman et al. (1973). They discovered a disparity between plan objectives and implementation outcomes. Sebastier & Mazmanian (1983) made a further advanced study of the theory of plan implementation and found implementation success. In 1995, John Reps showed the earliest research that evaluates plan implementation. The research was trying to identify the future of the original plan for the cities in America. He compared the earliest plan with the development practice happen in that time. Interest in
implementation started to gain attention in the 80s (Alexander, 1985) towards the end of 1980. Alexander & Faludi (1989) presented a PIPP model as a framework to assess plans and policies. This model proposed a framework that include strict evaluation questions that avoid the extreme of policies and plan evaluation. It was the same as the traditional model. The PIPP model lists five criteria for evaluation. They are conformity, rational process, optimality ex-ante, optimality ex-post and utilization in a programmed sequence of question to be applied to the plan under consideration as well as to their outcomes. Around 2004, a PIE methodology was presented by a group of American and New Zealand researchers. They study on the analysis of plans and permits to provide a rigorous, quantitative, and systematic way of assessing the degree of land use implementation (Laurian et al., 2004). PIE has been applied to six New Zealand plans and to almost four hundred land development permits focusing on storm water and urban amenity management.

Alfasi et al. (2012) demonstrated the most recent approach of plan evaluation. They used remote sensing and GIS-based Plan Implementation Evaluation to test the impact of comprehensive outline plan for Israel’s Central District on the actual development of the built environment. The results show fundamental gaps between the original land use assignments of the district plan and actual development. Although most of the studies explain implementation, less attention is given to the factors that affect plan implementation. Laurian et al. (2004) studied the factors affecting plan implementation and investigate the determinants of plan implementation by using PIE methodology. By identifying several key factors, they conduct the research on the developers and local authorities based on the permits in doing plan implementation. In Berke et al. (2006) research, they identified the effects of the implementation practices of planning agencies and the capacity of agencies and permit applicant to bring about success. Again Berke & Godschalk (2009) repeat their research but focusing in another point of view that was in producing a good quality of the plan as a factor in determining as a successful plan implementation.

3. Factors affecting plan implementation

In order to achieve desired goals, plan implementation is important to attain the development of the optimal strategies in the plan. Planners, however, know very little about the factors that may affect plan implementation and consequently, the effects of plans on the land development process (Talen, 1996). Given the complexity of evaluating the plan implementation, it is to be expected that the success or failure of plans is usually impressionistically rather than empirically assessed (Laurian et al., 2004). Nevertheless, the studies on plan implementation, thus far, indicate that successful plan implementation depends on meeting many conditions. Alterman and Hill (1978) identified three broad groups of variables associated with the degree of implementation of urban master plan. These are political-institutional factors, attributes of the plan and urban system factors such as population growth and economic activity. Talen (1997) categorised factors influencing plan implementation into internal and external factors. The internal factors are the nature of planning practice, the limitations of planning in the face of uncertainty, planners’ biases and roles, flaws in planning goals, the failure of plans to recognize the effect of political agendas on planning decisions, the weakness of some plans and the complexity and comprehensiveness of others. In terms of empirical works, Dalton (1989) identified the strength and weakness of plans as factors affecting implementation. Dalton & Burby (1994) identified plan quality as a determinant of implementation.

The external factors affecting or influencing implementation identified by Talen (1997) include the complexities of local political contexts, the degree of local societal consensus about planning issues, the degree of uncertainty and available knowledge about the issues at hand and the support for planning in terms of funding or political support. Laurian et al. (2004) identified the characteristics of the plan (i.e. its quality), the characteristics of the planning agency (i.e. its commitment to implementation and its capacity to implement the plan), the characteristics of land developers and their interactions with the agency, and the scale of the project as the factors of plan implementation. Van Meter and Van Horn (1975) established a model with six clusters of variables that affect the delivery of public services. Within this model, five clusters of variables affect implementation policy. They are policy standards and objectives, policy resources, inter-organizational communication and enforcement activities, the characteristics of the implementation agencies, and the economic, social and political environment (Van Meter and Van Horn, 1975). Similar framework used in a recent study on the implementation of an action plan for sustainable development across European communities concluded that the commitment of political parties is a factor critical. Economic resources and technical advice across governments must also be equally strong (Garcia-Sanchez and Lorenzo, 2009). An evaluation of plan implementation in China reveals that the internal factors namely the plan characteristics and the plan management ability, and the external factors, such as market forces and a city’s rapid growth have influenced the plan implementation (Tian and Shen, 2011). There are several common themes from these studies. Joseph et al. (2006) following extensive literature review identified 19 criteria that may influence plan implementation. Three main theme used to group these criteria. They are stakeholder characteristics, plan characteristics and implementation system characteristics. Table 1 shows the three main criteria and the variables for each criterion.

3.1 Stakeholder Characteristics

Almost all studies on plan implementation stress the importance of strong support by stakeholders. In the past, most planning activities occurred due to directives from government leaders and this top-down approach was heavily criticized since it ignored other parties involved in the process of planning or affected by the plan’s implementation. A 'top-down' evaluation assumes that the implementation of actions must comply with policies, and in which outcomes are compared with policy goals (Berke et al., 2006). Bottom-up models consider policy as an output of the implementation process, reflecting consensus building among stakeholders during the process that may improve policy outcomes. The recent development of collaborative planning has brought together both models thus stakeholders characteristics become relevant to plan implementation. Stakeholders are persons or parties that have a stake in the outcome of plan implementation or involve in plan implementation. Advocates argue that if stakeholders develop the plan, they are more likely to support its implementation (Susskind et al., 2000; Gunton and Day, 2003; Calbick et al., 2003; Burby, 2003).

Stakeholders thus include staff at all levels within government agencies, NGOs, private businesses, and public organizations. Based on various literature, stakeholder’s characteristics attributes include supportive external environment; consistent policy environment; strong leadership; adequate resource support and comprehensive stakeholder support.

3.2 Plan Characteristics

The plan must have a good quality to ensure successful plan
Implementation. High-quality plans provide accurate account of problems and why they exist and more importantly how to solve the problems. Prior research on plan quality suggests four key attributes of good plans. They is a clear identification of issues that is relevant to the community, a strong fact base that incorporates and explains the use of evidence in issue identification and the development of policies, an internal consistency among issues, goals, objectives, and policies and the monitoring of provisions to track how well objectives and goals are achieved (compare Baer, 1997; Berke et al., 2002). To a certain extent, plan characteristics require not only sound technical competency but should incorporate vigorous stakeholders’ involvement. Thus, the collaboration of stakeholder who developed the plans should have the highest quality, stakeholder commitment and thus are the most adept at countering changing conditions.

3.3 Implementation system Characteristics

The system that made up the implementation leads to the notion that implementation should be a collaborative effort among stakeholder. All government and non-government should involve in producing outputs assessing outcome and amending policy. Indeed with better opportunities given to the stakeholder, it will affect the result in accountability and legitimacy and also helps build and maintain the support of stakeholders.

4. Iskandar Malaysia comprehensive plan

Iskandar Malaysia lies at the heart of South East Asia at the southern tip of Peninsular Malaysia. The location of IM is strategically at a major crossroads of East-West trade routes of fast-growing countries like China and India. From a regional perspective, the development of IM will lend a greater competitive edge to the region and will benefit significantly from the air and sea linkages within Asia-Pacific countries. IM has also been considered to have a wider impact in relation to the zones of influence of the global cities of Kuala Lumpur and Singapore (Rizzo & Khan, 2013). IM covers an area of about 2216.3 km2 that is about three (3) times the size of Singapore and two times the size of Hong Kong Island. Iskandar Malaysia ranked as the second most important conurbation in Malaysia is envisioned to rival other city regions of East Asia such as Hong Kong and Singapore.

The IM are consisting of the entire district of Johor Bahru and several sub-districts of Pontian. The planning area falls under the jurisdiction of

| Table 1 Criteria to define sound plan implementation |
|---|---|---|
| **Stakeholder characteristics** | 1 Supportive external environment | Exogenous conditions such as social, economic and political are favorable to implementation success. | Albert et al. (2004), Talen (1996) |
| | 2 Consistent policy environment | Existing policy does not conflict with plan implementation and plan objectives | Albert et al. (2004), Vedung (1997) |
| | 4 Adequate resource support | Stakeholders have access to resources including money, staff, information, and any other tools required for implementation | Albert et al. (2004), Calbick et al. (2003), Margerum (1999b), Vedung (1997) |
| | 5 Comprehensive stakeholder support | All stakeholders are consistently supportive of implementation. | Butler and Knootz (2005), Albert et al. (2004), Margerum (2002), Booth et al. (2001) |
| **Plan characteristics** | 6 Problem is adequately understood | Implementation is based upon inadequate understanding of the policy problem and how implementation activities will lead to plan objectives | Albert et al. (2004), Vedung (1997) |
| | 7 Collaboratively developed plan | A successful, shared decision-making process was used to develop a plan | Frame et al. (2004), Albert et al. (2004), (Burby, 2003), Calbick et al. (2003), Gunton & Day (2003), Hall & O’Toole Jr (2000), Knopman et al. (1999) |
| | 8 Clear and consistent plan | Plan objectives and recommended actions are clear, consistent, and measurable. | Albert et al. (2004), Jackson and Curry (2002), Margerum (2002) |
| **Implementation system characteristics** | 9 Strategic implementation policy | The policy that specifies clear priorities and milestones guide the implementation process. | Albert et al. (2004), Gunton and Day (2003) |
| | 10 Supportive decision-making authority | Decision makers possess adequate authority and discretion to achieve implementation objectives. | Calbick et al. (2003), Margerum (2000), Knopman et al. (1999) |
| | 11 Adequate regulatory system | A diversity of implementation instruments, including rules, as well as written guidelines for compliance, enforcement, penalties, and incentives, exist to support implementation objectives. | Calbick et al. (2003), Victor and Skolnikoff (1999) |
| | 12 Comprehensive involvement of all parties in the organization. | All stakeholders are involved comprehensively throughout all phases of implementation, and all have a genuine opportunity to influence implementation. | Albert et al. (2004), Calbick et al. (2003), Gunton and Day (2003), Margerum (1999a) |
| | 13 Adequate networking and agreement during implementation | Implementation decisions are reached collaboratively through a network that link stakeholder and facilitate problem-solving. | Albert et al. (2004), Calbick et al. (2003), Margerum (2002); Hall and O’Toole (2000), Carr et al. (1998). |
five local planning authorities, namely Johor Bahru City Council, Johor Bahru Tengah Municipal Council, Pasir Gudang Local Authority, Kulai Municipal Council and Pontian District Council. It has large coastal land enrich with ecologically swamplands and important river systems such as Sungai Pulai, Sungai Tebrau and Sungai Johor. Over the years, due to extensive development, a lot of existing natural and agricultural land cover have been converted into anthropogenic land cover.

The global movement and rapid urban development provides an opportunity for the developing countries such as Malaysia to undertake a rather advanced regional approach in the development of IM while considering JB as metropolitan area and its strategic location next to Singapore (Rizzo & Glasson, 2012). From a physical planning standpoint, the CDP is a developmental roadmap for the next 20 years which aspire to guide decision makers, city planners, designers and builders in making decisions consistent with the overall plan. The Comprehensive Development Plan (CDP) has been formulated to provide the strategic framework which consists of visions, the key direction, principles and the development strategies for the region. They are aspired to be a livable region for its people, where its community can live their life with pride, pleasure and harmony. The formulation of the CDP provides a blueprint to achieve the vision of a ‘strong, sustainable conurbation of international standing’. It also aspires in creating a livable and attractive environment for residents, businesses and visitors. In the coming years, more new developments are expected in the region. It will be mostly high-end residential projects.

6. Result and discussion

6.2 Factors affecting plan implementation in Iskandar Malaysia

In this paper, we first present the overall perception on factors affecting plan implementation namely stakeholders characteristics, implementation system characteristics and plan characteristics.

The results show that stakeholder characteristics have the highest mean percentage (56 percent) among the three themes. This score suggests that a development robustness is critically affected by the stakeholder characteristics at least in IM. Stakeholders are comprised of personnel at all levels within government agencies, developers and public organization involve in plan implementation. These findings imply that stakeholders play an important role in determining the outcomes of planning. It is consistent with most models of implementation. Nevertheless, these studies justified this outcome by iterating that it
reflects the collaborative type of planning incorporating the bottom-up approach in decision making (Alterman & Hill, 1997; Barnet and Fudge, 1981). For most developing countries, the involvement of public in planning and decision making is discouraging. Public participation in Malaysian planning is only about 5% (Omar, 2007). Unlike local plan, the CDP for IM does not even require public participation in its formulation. The situation raises the question as to what extent stakeholders characteristic incorporate the general public.

The implementation system characteristic receives the second highest score (26 percent) indicating the need for a system that comprise comprehensive involvement of stakeholder and adequate regulatory framework. This finding is consistent with a study by Laurian et al., (2004) who concluded that the capacity of agencies to implement their plans has a strong effect on the implementation. In this research, plan characteristics are considered to have the least effect on the implementation (18 percent). These findings do not concur with other plans implementation studies such as Joseph et al., (2008); Laurian, et al., (2004). Laurian et al., (2004) found that storm water management in New Zealand benefit from high quality plan. The following section will discuss the criteria in further detail.

6.3 Stakeholder Characteristics

Stakeholders are comprised of staff at all levels within government agencies, developers and public organization who are involve in plan implementation to ascertain that every implementation is meant to be successful. Thus, such characteristics are needed to give clear understanding on the role of stakeholder in affecting plan implementation. In IM, the roles of stakeholder in providing and managing planning document are essential as it determines the direction for the plan.

The result features a comparison on degree of importance among the criteria that make up stakeholder characteristics in effecting plan implementation. The mean scores for each criterion have a significant value (p < .05) across all respondents. The highest mean score is strong leadership (m=4.83) followed closely by comprehensive stakeholder support (m=4.17) (Fig.3). The result indicates that leadership and support are reciprocal in driving the stakeholders to fulfill the objectives of the plan. As mentioned before, IM is being driven by the vision that wants international recognition. The lack of infrastructure requires the government invest heavily in order attract global investors. As such strong leadership is critical in making sure that the plan drawn to facilitate the implementation of such investment is observed. Supportive external environment (m=2.58) is slightly lower, indicating that this criterion are less significant in effecting plan implementation. Consistent policy environment (m=2.33) obtained the second lowest score. A consistent policy environment signifies that existing policy does not conflict with plan implementation and plan objectives. Particularly in IM, although the planning control requires that the development is a material consideration in deciding a planning application, the state authority is responsible for the general land use of the land in the state and is thus empowered to have the final decision. Since the objectives of IM is phrased to encompass the achievement of economic growth, it is thus difficult to find any contradictions. The question of adequate resource (m=1.08) is considered the least important in influencing plan implementation. It is similar to Dalton and Burby’s finding that agency resources do not critically determine plan implementation. In most cases, planners considered themselves as facilitators to enable market forces to act in a planned manner. Thus, we need to anticipate the response from planners in public agencies.

6.4 Plan characteristics

Plans are always portrayed as legal documents that guide and regulate urban development (Berke & Godschalk, 2009); Knaap, Ding, & Hopkins, (2001). Thus, plans need to have a standard quality that allows implementation to take place in a certain manner. Plans should be readable and understandable for stakeholders to follow. Figure 4 shows the planners’ perception on the degree of importance of the three criteria that explained plan characteristics.

The results show that the respondents consider collaboratively developed plan as the most important criteria in plan characteristic are (m=3.00). It shows that planners agree that collective decision-making of all stakeholders is the main ingredient for a successful plan implementation. The next important criteria are an adequately
understood problem (m=1.75). It implies that, by understanding the problems faced by the communities, stakeholders can avoid future problems and reduce unnecessary cost. Surprisingly, having a clear and consistent plan policies are perceived as the least important criteria influencing plan implementation (m=1.25). This finding is contrary to other studies by Baer (1997), Berke & Godschalk (2009), Laurian et al. (2004); Stevens et al. (2014) that suggested plan characteristics have a significant impact on plan implementation.

6.5 The Characteristics of Plan Implementation System

A systematic approach that make sure every planning application go through the proper channel before the making a decision determines a system that enables a successful plan implementation. These procedures require adequate regulatory system; adequate networking and agreement among stakeholders; comprehensive involvement of stakeholders; clear strategic implementation policies and supportive decision-making authority. Although these criteria are present in most plan implementation system, they are not equally considered as certain criteria are more emphasized than the others. Respondents are asked to rank the importance of each criterion in the context of effective plan implementation. All respondents consider the criteria as important (P< .05) although the degree of importance differs between each criterion (Figure 5).

![Figure 5 Implementation System Characteristics](image)

It is apparent that respondents consider adequate regulatory system as the most important criteria to ensure plans get to be implemented (m=5.00). The result suggests that a diversity of implementation instrument, including rules as well the guideline and enforcement are critical in plan implementation. Several high impact projects are developed to generate economic benefit to attract more investors to IM. Having sound regulation ensure the planning process easier to managed. Unnecessary problem solves effectively. Adequate networking and consensus building design implementation has the second highest score (m=3.58), indicating networking are important to ensure all decision are reached collaboratively through a network that link stakeholders. Supportive decision-making authority and comprehensive involvement share similar scores (m=1.5). It demonstrates that both criteria are seen to be equally important in influencing plan implementation.

7. Conclusion

Research on plan implementation is important yet a complex process since it involves many methodological issues. A number of studies have developed models to evaluate plan implementation, nevertheless the implementation literature show a scarcity of research on factors that influence plan implementation. This study contributes to the existing literature by examining the perception of planners on factors that contribute to a successful plan implementation. Iskandar Malaysia is chosen to be a study area due to the rapid development that is going on in the region, spurred by the Malaysian government in its effort to promote IM to the world. The present study identifies three major themes made up of thirteen criteria that are considered to be important in plan implementation. The study further explores to what degree the planners in the public agencies are agree with the criteria.

The most obvious finding emerge from this study is stakeholder’s characteristics. It becomes a critical factor that affects plan implementation. Thus, the roles of stakeholder’s are very crucial as the initiator for development that occurs around IM. The degree of importance of stakeholders perceived by the respondents is however less critical in other implementation. This finding is different from other studies that argued plan characteristics are critical in influencing plan implementation. Other studies suggest that the plan with sound quality can give clear guidance to other stakeholders.

Finally, a number of limitations need to be considered. First, the survey questions are inevitably ambiguous. Despite the effort in reducing ambiguity by follow-up interviews, respondents may interpret questions differently thus making summation of results unreliable. Second, the results reflect potential biases of implementation officials that may distort findings. For example, implementation officials may have a bias for reporting more successful implementation outcomes or exaggerating certain factors affecting success. Future research should address these limitations. Similarly, the characteristics of the sound plan implementation systems should be explored in other locales and contexts.

Acknowledgement

We would like to acknowledge the support by the Grant University Project (07J74) from Universiti Teknologi Malaysia.

References


