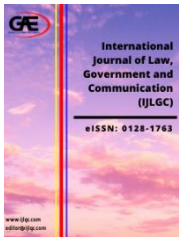
International Journal of Law, Government and Communication
EISSN : 0128-1763
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001



INTERNATIONAL JOURNAL OF LAW, GOVERNMENT AND COMMUNICATION (IJLGC)
www.ijlgc.com

A PUBLIC VALUE PERSPECTIVE ON DEVELOPING PUBLIC SECTOR PROJECTS: PENANG MASS TRANSPORT

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Article Info:

Article history:
Received date: 16.11.2020
Revised date: 09.05.2022
Accepted date: 03.06.2022
Published date: 01.09.2022

To cite this document:

Bagde, A., Blanes, R., & Isa, S. M. (2022). A Public Value Perspective on Developing Public Sector Projects: Penang Mass Transport. *International Journal of Law, Government and Communication, 7* (29), 01-17.

DOI: 10.35631/IJLGC.729001.

Abstract:

The effects on climate change and environment, sustainability in transportation should be the primary goal of every transportation systems. The city of Penang is failing to cope with the old transportation infrastructure due to the rapid economic growth and the boost of migration for work. The involvement of stakeholders in the deliverance of mass transport services is necessary to meet public needs. The findings from the case study reveal that Penang is in an acute need for a well-connected and robust sustainable transport system. The current structure of creating government policies is inadequate for the handling of the congestion along with policies it needs integration of the transport systems with rail systems. The authors propose that the adoption of a Public Value measurement framework can significantly improve the desired outcomes. The framework enables public managers to understand the needs of citizens and deliver a right balance of infrastructure development and amendments needed in policy that can help Penang achieve a value-based sustainable transportation system.

Keywords:

Public Value, Public Transportation, Sustainable Transportation, Public Sector, Policymaking

Introduction

For the past two decades, the Malaysian government has been working on a vast scale modern infrastructure high investments project to counter the technological changes and competitiveness of other countries. Projects relating to energy, information and communications technology, transportation and logistics have always been a prime concern for development in the country. Penang ranked 8th for the most livable town in Asia for two years

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and is the second-largest city after Kuala Lumpur (ECA, 2010, Mok, 2016; Khoo et al., 2015; Khar Ee & Leng, 2014). It hosts the highest number of tourists with its world heritage attractions and attracts immigrants from other states and the neighbouring countries for work opportunities (Rasagam, 1999).

Penang has various modes of transport; air, water and land, but the transport system infrastructure is failing because of less space in major town areas, the rapid growth of car ownership, overcrowding of people, traffic congestions due to high volume of vehicles (Loh, 2015; Rasagam, 1999). Indeed, it impacts the environment due to vehicles pollution from nonrenewable fuel usage, and overall unreliable mass transport systems (Ibid.). Blanes (2017) argues that the transportation system failure is due to limited consultation with the community, public organisations and internal-centric decision-making processes. The current transport system requires radical policy changes and amendments in the government's infrastructure development frameworks (Rasagam, 1999; Loh, 2015; Lee, 2017; Fernandez, 2019). Similarly, these needed changes in policies have to go through various governmental procedures to be considered valuable for practising with the existing policies (Docherty, 2011). To address the issues, this paper proposes a public value (PV) measurement framework as part of the policy and programme decision-making process in the development of a mass transportation project.

Literature Review

The PV concept has attracted much attention and has been widely used to design a framework for public sector projects (Meynhardt et al., 2014). In most developed countries, PV approach is mainly used to evaluate the project's performance (Meynhardt et al., 2014; Moore, 2007; Spano, 2014).

Defining Public Value (PV)

PV is a multidimensional concept that has been approached in several ways (Alford and O'Flynn 2009; Horner et al. 2006; Bozeman 2009; Williams and Shearer 2011; Rutgers 2015) and has attracted criticism for not being distinctly defined (Rhodes and Wanna 2007; Prebble, 2012). At a general level, PV has been described as 'a comprehensive approach to thinking about public management and continuous improvement in public services' (Constable et al. 2008; Moore 1995). PV is related to, but distinct from, research on public values (Nabatchi 2011; Van der Wal et al. 2015). PV refers to 'the value created by the government through the services, laws regulation and other actions' (Kelly et al. 2002). It is produced by the public managers successfully navigating a strategic triangle (Moore 1995) encompassing (1) creating the valued outcomes and doing so within the constraints of the (2) available resources and the capability, and (3) the authorising environment of formal and informal jurisdiction, mandate, and legal frameworks. According to Moore (1995), 'managerial work in the public sector aims to create PV just as managerial work in the private sector aims to create private value'. In contrast, public values refer to the normative personal judgements about the 'social standards, principles, and ideals to be pursued and upheld by the government agents and officials' (Bozeman, 2007; Nabatchi, 2011; Faulkner & Kaufman, 2017).

The Concept of Public Value Management

PV management was introduced as a replacement approach to the New Public Management (NPM) (Moore, 1995). Organisations are increasingly urged to consider how they could address extensive societal needs and invest in strategies and practices to *create "a shared value"* for businesses and society (Porter & Kramer, 2011). The PV concept is centrally

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focused on the needs of the public as citizens as well as consumers of the services and the creation of value (Carli, 2011). In contrast to NPM which concentrate on achieving targets (Ibid.). Carli (2011) further states that PV is more than the aggregation of individuals needs with as it deliberates as to what constitutes PV at its core.

Additionally, Public Value explores two critical dimensional questions: "What does the public most value?" and "What adds value to the public sphere?" (Benington, 2011). Thus, in addition to providing fair and quality services to individuals, public managers also have a duty to offer broader and measurable benefits to the local community as a whole. The role of public managers are as "explorers" and "creators" of PV, by looking outward, upward, downward and inward, and as the co-ordinators of the three components of the strategic triangle (Turrell, 2017). The main focus of PV management is to form networked governance with public institutions working and leading across organisational boundaries including within a "mixed economy" network of public, private and other third sector providers (Moore, 1995; Turell, 2017). Co-production is core to the creation of PV with the public and other stakeholders involved in both the designing and delivering of public services (Turrell, 2017).

Therefore, unless the managers and the scholars learn how to translate social and environmental problems into resonating value arguments, and integrating those into their value vocabularies, these issues are more likely to remain barriers and missed opportunities to improve functional performance and social wellbeing (Ramirez et al., 2014).

Table 1: Classification of Public Value

Social value	Adding value to the public domain by contributing to social relationships, social capital, social meaning and culturally identify, individuals and communities well-being.
Political value	Adding value to the public domain by encouraging and supporting democratic dialogue and active public participation and engagement of citizens.
Economic value	Adding value to the public domain through the generation of economic activity and employment.
Ecological value	Adding value to the public domain by actively promoting sustainable development and reducing public 'bads' like wastes, pollution, global warming, etc.

Source: Benington (2011)

Public Value has a broader conception of "value" which is broader than the purely economic value associated with "surplus value". The classification of Public Values summarised in Table 1 indicates the more comprehensive value which governmental institutions and private firms should be aiming to deliver.

Sustainable Value

Sustainable value and PV approaches have started to gain traction in introducing environmental and social issues into the contemporary value discourse. Sustainable value refers to the "economic, social and environmental benefits that an organisations offering delivers to customers and the society at large" (Patala et al., 2016). This is grounded in a triple bottom line approach, which measures how organisations' activities impact people, the planet, and profit over time (Elkington, 1998; Savitz et al., 2007). In this framework, environmental

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and social outcome plays an equal role in economic outcomes and are validated accordingly. This can help managers to communicate and to understand the broader consequences of their actions, and make better informed cost-benefit analyses of different value outcomes (Keränen, 2017). Innovative companies are increasingly building environmental and social business cases that show prospective customers and key decision-makers how (and how much) changes in social and ecological conditions can unlock new economic value potential (Chouinard et al., 2011; Pfizer et al., 2013; Inigo et al., 2017). PV, on the other hand, refers to the more subjective perception of the "common good", where organisations may contribute to society more broadly (Meynhardt, 2009). It is often considered in terms of mutually shared experiences of (and preferences for) perceived fairness, solidarity, trust, social cohesion, moral obligations, and overall welfare, which are mediated by a prevailing consensus of views and beliefs of what is (or should be) fair and just (Moore, 1995; Moore, 2013; O'Flynn 2007). In other words, besides economic, social, and environmental outcomes, considerations of PV may also include cultural, educational, and political consequences, which can contribute to the wellbeing of society as a whole (Benington, 2011). While PV creation has traditionally been thought of as mainly the responsibility of governmental organisations and policymakers, several private organisations, such as Fresenius Medical Care and FC Bayern Munich, are increasingly using PV as a guide to inform decision making, foster dialogue with stakeholders, and assess new market opportunities (Meynhardt et al., 2014).

Public Value – As A Paradigm Shift for Transportation

The provision of public transport is crucial to support economic and social activities in the modern developing city (Veeneman & Koppenjan, 2010, Rasagam, 1999; Litman, 2004; Litman 2007; Black, 2010). It generates recurring PV, which governments seek to protect through public intervention such as direct service provision, financial subsidy and regulation (Veeneman & Koppenjan, 2010; Veeneman & van de Velde, 2006). Additionally, PV recognises the importance of relationships between providers, users, manufacturers and public authorities (Stoker, 2006). Thus, PV provides a thorough understanding of the complexity of relationships than the buyer/seller split mediated by a contract (Collins, 2007; O'Flynn, 2007; Stoker, 2006). Furthermore, PV asserts the need for public agencies to work with citizens to co-create, articulate and asserts the demand to establish legitimacy and trust for public policy (Carli, 2011). This is because PV recognises that public authorities operate in an adaptive and fluid system that is qualitatively different from simple market forms, and should not merely follow private sector business principles (Ibid.). It also calls for more political accountability to citizens and politicians (Ibid.). Consequently, PV management avoids top-down models that focus public managers on meeting centrally driven targets and performance management (Alford & O'Flynn, 2007; Blaug et al., 2006; O'Flynn, 2007; Talbot, 2008).

Indicators are factors that are measured to evaluate progress toward goals and objectives (Castillo & Pitfield, 2009). Indicators have many uses: they can help identify trends, predict problems, assess options, set performance targets, and evaluate a particular jurisdiction or organisation (Litman, 2012; Black, 2010). There is a diverse series of PV indicators for assessing the impact of privatisation on transport (Veeneman & Koppenjan, 2010; Veeneman, Van de Velde, & Schipholt, 2006; Carli, 2011). Several recurring PVs are identified; social inclusion, economic development, safety and congestion, public administration, quality, and value for money (Veeneman & Koppenjan, 2010; Veeneman & van de Velde, 2006). The PV defended and used by the government to justify funding of public transport are relatively constant (Ibid.). Indicators of the PV of the kind identified by Veeneman et al. can form the

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basis of a Public Value Framework that we can use as a mechanism for examining a mass transport system.

Additionally, Litman (2007, 2012) has developed a comprehensive set of indicators study which can be directly applied to any stage of transportation to review the feasibility of the ongoing process planning or the outcome. For investigating the transport performance, various indicators are developed, but all the indicators can be aggregated in terms of economic, social and environmental components (Castillo & Pitfield, 2009; Black, 2010).
Litman (2007) divided the performance indicators (see Table 2) into three categories; the most important, helpful and specialised. It is vital to select indicators that reflect the overall goals set for the project. Additionally, it is also crucial to be realistic when selecting indicators, taking into account data availability, understandability, and usefulness in decision making (Black, 2010).

Table 2: Indicators Set for Transportation Performance

	Economic	**Social**	**Environmental**
Most Important	Per capita mobility, Congestion costs, Mode split,	Affordability, Reservation for vulnerable groups, travel time	Energy consumption, land use impacts
Helpful	Availability of public services within 10mins walk distance, ridesharing and transport integration hubs	Degree of cultural resources considered while planning, portion of children walking or cycling to school, Community cohesion (quality of interactions among neighbours)	Green lanes for bicycle and walking, use of renewable fuels
Specialised	Portion of households with Internet access, Change in property values	Transit affordability, Housing affordability within accessible locations	Impacts on unique habitats and environmental resources, Heat island effects

Source: Litman (2007)

For comprehensive and sustainable transportation planning, it is usually best to choose a balanced set of indicators that reflect a combination of economic, social, and environmental objectives (Haghshenas & Vaziri, 2012).

Thus, indicators study is an essential practice for evaluating a region's transport performance. Still, they vary according to geography, the economic state of the area and progress in infrastructure development (Black, 2010). In the context of this study, the indicators from

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EISSN : 0128-1763
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Litman (2007) can be used to gain insights on the social, economic, and environmental components of the case study area.

Public Value Measurement Frameworks

Frameworks for measuring the extent to which government bodies are creating PV is essential for both practical and scholarly reasons. For practitioners, measuring PV is vital for three reasons: '(1) to meet demands for external accountability; (2) for establishing a clear, significant mission and goal for the organisation (3) and for fostering a strong sense of internal accountability' (Moore 2007; Spano 2014). Measuring PV forces the public administrators to be accurate about the types of PV they seek to produce, which can lead to increased performance (Moore, 2007). For scholars, measuring PV is essential for testing hypotheses about the possible causes and consequences of PV. Without the ability to reliably and validly measure an organisation's PV, it is impossible to test ideas about how to maximise PV quantitatively, or the impact PV has on citizens' lives (Ćwiklicki, 2016).

Furthermore, without the ability for testing the PV hypotheses, theoretical development will remain at the possibility of stagnation (Williams and Shearer, 2011) because researchers will be unable to identify the causes, correlations, and consequences of PV. Williams and Shearer's (2011) systematic literature review on PV highlight the need for practical research to evaluate the claims made by both supporters and critics of PV. Without improving the empirical foundation of PV research, 'Public Value is likely to fall short in offering an extensive theory of public enterprise and organisation' (Williams and Shearer, 2011).

The study reviews five models derived from the two main concepts; Moore's Public Value (Moore, 2003) and Miles's Value Analysis (Miles, 1989). The following annotation of frameworks are based on Ćwiklicki's (2016) study are presented in Table 3:

Table 3: Comparison Of Frameworks/Concepts for Measuring Public Value

Concept / Features	Competing Value Framework	Performance Mnagaement System	Public Value Scorecard	Accenture Public Sector Value Model	Management of Value
Author/s/ Institution	R. Quinn and J. Rohrbaugh (1983)	Deidda Gagliardo & Poddighe (2011) Bracci, E., Deidda Gagliardo, E., & Bigoni, M. (2014)	M. Moore (2003)	G. Cole and M. Parston (2006)	Office of Government Commerce
Purpose	Organisational analysis	Measurement and management of the values created	Measuring performance	Measuring performance	Measuring performance

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Areas for execution	All kind of organisations	Local government	Non-profit organisations	Public agencies	All kind of organisations
Coherence with concepts	Independent approach	Public Value	Public Value	Value Analysis	Value Analysis
Reference to other Economic and Management concepts	Parsonian Framework	Public Management control, strategy management	Balanced scorecard	Functional analysis	Functional analysis, M_o_R, P30, ITL
Methodology accuracy	General	Detailed	General	General	Detailed
Operability	Average	High	Average	High	High
Cost category	Not included	Included, quantified	Clearly described	Clearly described	Clearly described

Source: Ćwiklicki, (2016)

The frameworks presented above in Table 3 differ from one another, although some of them are more closely related. The scope of implementation ranges from local governments to all kinds of organisations. The cost of providing PV is included in almost all the frameworks and is thoroughly described. Subsequently, the authors developed a PV Measurement Framework (See Table 4) that combines the ideas from the five frameworks with Litman's (2004, 2007 and 2012) transportation development and Veeneman's PV indicators (Veeneman & Koppenjan, 2010; Veeneman, van de Velde, & Schipholt, 2006). The developed public value measurement framework has been mainly focused for development and assessment of mass transportation system.

Table 4: Developed Public Value Measurement Framework / Public Value Scorecard for Mass Transportation

Public Value	Objective/Dimensions	Indicators
Economic Development	1. Accessibility –land use mix 2. Accessibility –smart growth 3. Affordability 4. Commute access 5. Facility costs 6. Planning 7. Transport diversity	1. Penang transport service provides several job opportunities and commercial services. 2. Implementation of the policy and planning practices that lead to more accessible, clustered, multi-modal development 3. Public transport affordability 4. Average commute travel time by Penang transport 5. Expenditure on roads, traffic services, and parking facilities 6. Transport institutions reflect least-cost planning and investment practices

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		7. Transport diversity management (Mode split: walking, cycling, rideshare etc.)
Social Inclusion	1. Citizen involvement 2. Community livability 3. Equity –disabilities 4. Equity –fairness 5. Equity –non-drivers 6. Health & fitness	1. Public participation in the transport planning process 2. Increase in community livability by transport activities 3. Quality of transport facilities and services per people with disabilities 4. The subsidy given to the transport by Penang government is justified 5. Quality of accessibilities and transport services for nondrivers 6. Quality of facilities accessible for the portion of the population who regularly walks or cycles
Environment Consideration	1. Climate change emission 2. Habitat protection 3. Land use impact 4. Noise pollution 5. Resource efficiency 6. Air & Water pollution	1. Control over fossil fuel consumption, CO_2, other change due to emission 2. Preservation of wildlife habitat 3. Land devotion to transport facility 4. Traffic noise control 5. Usage of non-renewable resources for the vehicles and transport facilities 6. Water pollution control, Emission control of "conventional air pollutants.
Quality	1. Quality Infrastructure, Comfort and cleanliness	1. Regular cleaning of Public spaces in transportation hubs and vehicles, Satisfaction surveys
Value for Money	1. Increase in patronage last five years 2. Reliability of service 3. Service intervals in peak hours 4. Average costs of travel	1. Increase in-person trips per day by different modes 2. Percentage of late arrivals 3. The proportion of fewer than 15 minutes of services 4. Costs of weekly tickets
Safety of Public	1. Number of injuries or fatalities on the current transportation system 2. Emergency services	1. Data procurement and records tracking 2. Availability of Police and emergency healthcare workers
Public Administration	1. Public Participation 2. Legitimacy	1. Public involvement activities 2. Political Party policy positions and the role of private sectors

Source: Researchers' development

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EISSN : 0128-1763
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The PV indicators allow for a straightforward comparison of whether the current situation of the mass transport system is sustainable and if it considers PV. The indicators include those identified by Veeneman and Koppenjan's (2010), in their work on Dutch public transport services with the addition of the PV of the environment. The addition is because public transport provides a more efficient use of energy and space. It is increasingly valued for contributing to a cleaner environment. In the framework, there is an indicator for public participation and political parties' policies as PV management has a strategic role for public servants, politicians and citizens in both defending and developing the services.

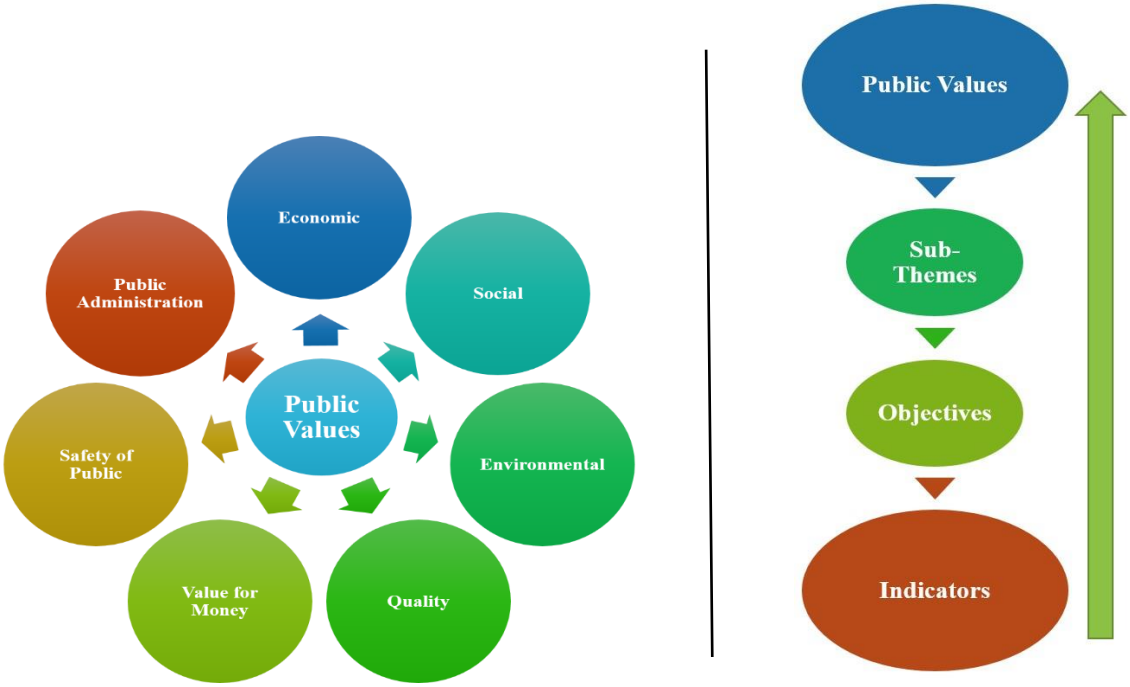

Figure 1: Public Value and Subthemes (Left) and Public Value Measurement Technique (Right)

Source: Researchers' development

Public Value and subthemes are shown in Figure 1 (Left). The subthemes form together with the PV and according to different scenarios for different studies, the subthemes can be different.

The Public Value Measurement technique is represented in a graphical form in Figure 1 (Right). The process for PV measurement involves dividing PV to subthemes (according to the need of the study), setting the objectives of the subthemes and indicators to achieve the objectives, which can be used to assess if the system complies with the public values. The arrow in the upward direction represents the evaluation approach. If indicators are either positive or negative, then the end result of the study will be positive or negative.

Research Methodology

Since the independence, the Malaysian economy has posted impressive rates of growth, in the process undergoing critical structural changes (Naidu, 2014) Neither the development of the economy nor its structural transformation, from a principally agricultural-based economy to a manufacturing and service-based one would have been possible without the sustained expansion and modernisation of the country's infrastructure (Ibid., Loh, 2015; Rasagam,

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1999). Despite the growth, the transportation infrastructure for Penang is lagging. Therefore, a case study approach for Penang's mass transportation system is suitable for a research format that attempts to explore a modern phenomenon within a real-life context (Yin, 2003). This case study takes on an interpretivist approach using semi-structured interviews with five key stakeholders for developing a perspective on Penang's mass transportation system. The stakeholders include authorities (both the federal and the state government), city council, academics, and end consumer's (general public). Therefore, purposive sampling is chosen as it allows for identifying and selecting information-rich cases relating to the project's interest (Palinkas, 2013).

The interviewees are asked for their perspectives on the PV objectives/dimensions in Table 4 and rate the indicators based on a scale of 1 to 10: 1 to be least satisfying and 10 to be the most satisfying. Because of the difficulty of comparing the cost per passenger of public transport services across different cities, value for money is used as the PV, rather than economic efficiency. In part, it provides a proxy measure for economic efficiency. There are considerable differences in the geography and size of different cities, the composition of the network and the method by which costs are calculated. For example, there are considerable differences in the running costs of a train network compared to tram or bus services. Furthermore, the economic efficiency of outsourcing generally has been realised in the first round of contracts. Savings cannot be readily identified, and few are realisable in subsequent years. Critical figures such as the chief of transport of the state, academic experts, as well as state government officials, are interviewed as they have access to the appropriate contextual and situated knowledge (Mason, 2002).

The analysis of primary qualitative data is undertaken in a manner that aims to complete a rigorous comparison of topics and concepts extracted from information in interview transcripts. The gathered data is coded both manually and using NVivo to analyse whether the direction of the federal policy resonates with the stakeholders outlined in the policy. NVivo is also used to identify the key themes emerging from the interviews. The authors look for themes that are either overarching or mismatching. The fieldwork is concluded when the authors are satisfied that data is saturated. These are then triangulated with academic literature and industry reports. The results are discussed in the next section.

Results

The developed Public Value Measurement Framework (see Table 4) provides measurements of government organisations' performance in creating PV. For making any transportation system sustainable, the system should be affordable, accessible, environmentally friendly and integrated (Litman, 2012; Black, 2010), i.e. the system should satisfy the economic, social and environmental objectives at all times of operations.

The interviewees believe there is a lack of proper infrastructure planning (the least 26 out of 50). The Government fails to forecast the current problems faced by the logistics sectors and the people of Penang. This is aligned with Black's (2010) argument that planning is the first stage for any system considering transportation, as it is always changing and should continually adapt to cater to the essential needs.

It is found that the score in social indicators is the least (26 out of 50) for accessibility of disabled person and children. This finding is supported by Rasagam (1999). Simultaneously,

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the interviewees confirmed that in almost 20 years, the situation is the same and have seen incidents with the people of these vulnerable groups. *"There is still a major problem for disabled people, wheelchair person are not accommodated in the bus service and are asked to wait for the scarcely filled buses, I can say that disabled people are not given proper facilities and help in services."*- Public view interviewee.

The elements for environment considerations collectively (201 out of 350) resulted in being on the downward part among other value indicators from the results. Where the resource efficiency and protection of natural habitat (26 and 27 out of 50) scored the least among others, as highlighted by a State Government Interviewee, *"The land space of Penang is quite less, and protection of natural habitat should be of utmost importance, but for new projects, the natural habitat has been regularly disturbed which in future will harm the ecology of the island"*. Additionally, the government should play a central role in decarbonising transport and practice strict policy for the usage of fossil fuels (Black, 2010). This is supported by the interviewees, *"the country is one the largest producer of crude oil in South East Asia and for using renewable fuels the government should strictly stop providing subsidy on fuel prices and lower interest rates on private car purchases."* – Academic expert interviewee.

Furthermore, the safety of the public needs to be continuously developed with time. Sadullah (2008) also discuss the need for reducing road accidents and safety incidents. Public and Academic interviewees highlight the impact these have on emergency services *"emergency services are impacted by the congestion in the city and can go through a long overhaul in traffic this is the most serious issue which is affected by the current transport infrastructure".* However, no recent focus or interventions have been taken by the Government.

Public administrations indicators mainly in terms of stakeholder engagement and public participation have been discussed to be significantly important. These findings stress the need to include public opinions on huge-scale projects (Bellantuono et al., 2016; Queiroz, 2009). In achieving value-based transportation, public managers should involve the public or end-users within the plans and implementation of tasks (Barfod, 2018). *"If the public is not involved from the planning stage of a public sector project, this can result in resistance from the public against the government and could lead to protests and strikes."*- Academic expert interviewee. And in future, this resistance can harm the image of government which could be costly for over their next elections (Black, 2010, Barfod, 2018). To avoid such situations, stakeholder engagement can help smoothing out the opposite views and encourage public participation which can provide clear transparency in the development plans (Friedman, 2006).

All the interviewees agree that congestion affects every citizen in Penang in some or the other way. Penang has only two bridges that connect with the mainland. According to all the interviewees, the traffic starts accumulating from the exit points on the bridges and traffic will standstill for hours, mainly during the peak hours. This congestion in Penang can be accounted for the weak public transportation or mass transportation system in Penang. *"If public transportation is effective, accessible, efficient, scheduled, and maintained, then people will choose public transport more than their private vehicles"* – Academic expert interviewee. The primary responsibility of public transportation is to relieve the country from cars as their leading cause of traffic congestion (Tolley and Turton, 1995). The existing bus services,

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according to all the interviewees, have not managed to influence car users to use public transport.

All the interviewees are distressed by the traffic congestion. Congestion has a profound effect on the cities, from increased air pollution and carbon dioxide levels, additional wear on roads, vehicles and additional cost of fuels. It psychologically affects individuals; increased anxiety, stress, road rage and anger in people stuck in traffic, especially when they have an important meeting or work (Stokols et al., 1978). Traffic congestion can never help a developing nation to grow towards sustainable development (Black, 2010).

From the discussion, the public is unenthusiastic and reluctant to use the mass transport system in the city as it does not provide more excellent value than their private vehicles. Motivating and encouraging public through education about the benefits of using public transports, and campaigns for public transport awareness could be a driving force for people to convert from private to public transportation (Black, 2010).

The interviewees agree that the main parameters or indicators (economic, environmental and social) can judge whether the system or the process is sustainable. Additionally, for a transportation model to be sustainable, all three indicators must be on the positive side (Litman, 2007; Black, 2010). The findings show that the city's current transportation system is weak and unsustainable.

To effectively practice the developed Public Value Measurement Framework (**Table 4**), it is essential to set clear overarching goals and commitment in ways that enable innovations to flourish. At the same time, it must ensure the enhancement of PV. Both the state and federal governments need to work cohesively to avoid mismanagement and gain opportunities necessary for a significant investment project of infrastructure to be competitively useful for over 50 years (Docherty, Marsden & Anable, 2018). However, for public managers, the question remains about how to operationalise the measurement framework and practically apply it. *"Going through the legalisation and governmental procedures takes a longer period for a change actually to occur"*-State government interviewee. Nevertheless, the disruptions in the current transportation system discussed above act as an opportunity for a radical shift with policy amendments and new innovative techniques to enable a futuristic transportation system and contemporary policymaking (Marsden and Docherty 2013).

Conclusion

Federal and state governments expect a lot from public transport. They want people to increasingly use public transportation to alleviate congestion and positively benefit the environment. This paper proposes a PV measurement framework as part of the policy and programme decision-making process for the development of a mass transportation project. The framework from this case study can be used as a guide to assess the PV as well as the sustainability of an existing public sector project or a project which is in the planning stages. It is a challenge to coordinate various interventions to reduce counter-productive conflicts between the stakeholders. Different layers of government tend to focus on different values which may hamper the possibility for regional authorities to secure values perceived as necessary by their communities. As a result, public transport will have the stellar quality of some values but fail on others. The challenge is to make a set of interventions work together, fine-tuning the most needed interventions for the various types of values to work together in

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EISSN : 0128-1763
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001

a better way. If all stakeholders work hand-in-hand, rapid progress towards the goals can be accomplished.

However, PV is broader than just the provision of efficient and quality services. While most of the Government's focus is on efficiency and quality, they do not adequately cover all the other PV that governments want in the provision of public transport. PV provide the basis from which to understand and develop such relationships. To achieve PV public authorities, through a dialogue with stakeholders, must identify the values they need to pursue and the strategy to foster these values further.

References

Accenture. (2016). Arizona Department of Revenue: Public service value model – Accenture.

Alford, J. & O'Flynn, J. (2007). *Public Value: A Stocktake.*Concept Paper presented at the Twelfth Annual Conference of the International Research Society for Public Management.

Alford, J. & O'Flynn, J. (2009). Making Sense of Public Value: Concepts, Critiques and Emergent Meanings. *International Journal of Public Administration, 32*(3–4), 171–191.

Barfod, M. (2018). Supporting sustainable transport appraisals using stakeholder involvement and MCDA. *Transport, 33*(4), 1052-1066.

Bellantuono, N., Pontrandolfo, P. & Scozzi, B. (2016). Capturing the Stakeholders' View in Sustainability Reporting: A Novel Approach. *Sustainability. 8*(4), 379.

Benington, J. & Moore, M. (eds.) (2011). *Public Value Theory and Practice*. Palgrave Macmillan, Basingstoke.

Benington, J. (2011). *From Private Choice to Public Value?* In Benington, J. & Moore, M. (Eds.) Public Value Theory and Practice, Basingstoke: Palgrave Macmillan., 31-51.

Black, W. R. (2010). *Sustainable transportation problems and solutions*. The Guilford Press, New York.

Blanes, R. (2017). *Smart policy for public value: strategic management in public sector reform*. PhD thesis, University of Glasgow.

Blaug, R., Horner, L. & Lekhi, R. (2006). *Public value, politics and public management – A literature review*. London: The Work Foundation.

Bozeman, B. (2007). *Public Values and Public Interest: Counterbalancing Economic Individualism.* Washington, DC: Georgetown University Press.

Bozeman, B. (2009). Public Values Theory: Three Big Questions. *International Journal of Public Policy, 4*(5), 369–375.

Bracci, E., Deidda Gagliardo, E., & Bigoni, M. (2014). *Performance management systems and public value strategy: A case study*. In J. Guthrie, G. Marcon, S. Russo, F. Farneti (Eds.), Public value management, measurement and reporting, Bingley, UK: Emerald Group Publishing, 3, 129–157.

Carli, C. (2011). Public Values in a privatized" Public Transport system.

Castillo, H., & Pitfield, D. E. (2009). Elastic-A methodological framework for identifying and selecting sustainable transport indicators. *Transportation Research Part D: Transport and Environment, 15*(4), 179–188.

Chouinard, Y., Ellison, J., & Ridgeway, R. (2011). The sustainable economy. *Harvard Business Review, 89*(10), 52–62.

Cole, M. I., & Parston, G. (2006). *Unlocking public value a new model for achieving high performance in public service organizations*. Hoboken, N.J.: John Wiley.

International Journal of Law, Government and Communication
EISSN : 0128-1763
IJLGC
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001

Collins, R. (2007). The BBC and Public Values. London: The Work Foundation.

Constable, S., Passmore E. & Coats, D. (2008). *Public Value and Local Accountability in the NHS*. London: Work Foundation.

Ćwiklicki, M. (2016). Comparison of public value measurement frameworks. *Zarządzanie Publiczne*, 20-31.

Deidda Gagliardo, E., & Poddighe, F. (2011). *The system of creation and measuring of the public local value. Empirical evidence and support for the governance of the territory*. In R. Mussari & E. Borgonovi (Eds.), Collaborating and competing for a responsible and fair market. Government, non-profit organizations, foundations, cooperatives, social enterprises. Bologna: Il Mulino.

Docherty, I. and Shaw, J. (2011). *The governance of transport policy*. In: Geels, F., Kemp, R., Dudley, G. and Lyons, G. (eds.) Automobility in transition? A socio-technical analaysis of sustainable transport. Series: Routledge Studies in Sustainability Transitions. Routledge: Abingdon. ISBN 9780415885058

Docherty, I., Marsden, G., & Anable, J. (2018). The governance of smart mobility. *Transportation Research Part A: Policy and Practice, 115*, 114-125.

Dunleavy, P., Margetts, H., Bastow, S., & Tinkler, J. (2005). *New Public Management is dead: Long Live Digital Era Governance in L. S. E. EDS Innovation Research Programme* (Ed.). London.

ECA International (2010). *Liveable Cities in the Asia: Rankings*. London, ECA International.

Elkington, J. (1998). Partnerships from cannibals with forks: The triple bottom line of 21stcentury business. *Environmental Quality Management, 8*, 37–51.

Faulkner, N., & Kaufman, S. (2017). Avoiding Theoretical Stagnation: A Systematic Review and Framework for Measuring Public Value. *Australian Journal of Public Administration, 77*(1), 69-86.

Fernandez, N. 2019. *Making Penang more livable*. The Star Online. Retrieved from https://www.thestar.com.my/travel/malaysia/2014/07/26/making-penang-moreliveable/.

Finnegan, T. (2003). *Accenture's public sector value framework*. Applications for the revenue industry. Oklahoma City. www2.taxadmin.org/fta/meet/03am_pres/finnegan2.pdf

Friedman, A. L. & Miles, S. (2006). *Stakeholders: Theory and Practice*. Oxford University Press, UK.

Haghshenas, H., & Vaziri, M. (2012). Urban sustainable transportation indicators for global comparison. *Ecological Indicators, 15*(1), 115-121.

Horner, L., Lekhi, R. & Blaug, R. (2006). *Deliberative Democracy and the Role of Public Managers*. London: The Work Foundation.

Inigo, E.A., Albareda, L., & Ritala, P. (2017). *Business model innovation for sustainability: exploring evolutionary and radical approaches through dynamic capabilities*. Industry and Innovation, (in press). http://dx.doi.org/10.1080/13662716.2017.1310034.

Kaplan, R. S., & Norton, D. P. (2001). *The strategy-focused organization: how balanced scorecard companies thrive in the new business environment*. Boston, Mass: HBS, Press.

Kelly, G., G. Mulgan & S. Muers. (2002). *Creating Public Value: An Analytical Framework for Public Service Reform*. London: UK Cabinet Office.

Keränen, J. (2017). Towards a Broader Value Discourse: Understanding Sustainable and Public Value Potential. *Journal of Creating Value, 3*(2), 193-199.

Khar Ee, C., & Leng, K. (2014). Issues and challenges of a liveable and creative city: The case of Penang, Malaysia. *Malaysian Journal of Society and Space, 10*(3), 33-43.

International Journal of Law, Government and Communication
EISSN : 0128-1763
IJLGC
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001

Khoo, S., Samat, N., Badarulzaman, N., & Dawood, S. (2015). The Promise and Perils of the Island City of George Town (Penang) as a Creative City. *Urban Island Studies, 1*, 20-34.

Lee, J. (2017). *Vehicle registrations in Malaysia hit 28.2 million units*. Paul Tan's Automotive News. [Online].

Litman, T. A. (2012). *Well measured: Developing indicators for sustainable and liveable transport planning*. Monograph Victoria Transport Policy Institute.

Litman, T. A. and David B. D. (2004). Issues in Sustainable Transportation. *International Journal Global Environmental Issues, 6*(4), Pp.331-347.

Litman, T. A., (2007). *Urban Transportation Management, Chapter 9. Handbook on Urban Sustainability*. N.Munier (editor), Springer, 353-387.

Loh, A. (2015). *Through the wheels of time - Metro News*. The Star Online. Retrieved from Thestar.com.my

Marsden, G., & Docherty, I. (2013). Insights on disruptions as opportunities for transport policy change. *Transportation Research Part A: Policy and Practice, 51*, 46-55.

Mason, J. (2002). Qualitative Researching, 3rd ed. London: Sage Publications.

Meynhardt, T. (2009). Public value inside: what is public value creation*? International Journal of Public Administration, 32*(3/4), 192–219.

Meynhardt, T., Gomez, P. & Schweizer, M.T. (2014). The public value scorecard: what makes an organization valuable to society? *Performance, 6*(1), 2-9.

Miles, L. (1989). *Techniques of value analysis and engineering*. Eleanor Miles Walker.

Mok, O. (2016). *Making George Town more walkable, one street at a time*. Malay Mail, Retrieved from https://www.malaymail.com/news/malaysia/2016/08/09/making-george-town-more walkable-one-street-at-a-time/1179625.

Moore M. H. (2013). *Recognizing public value*. Cambridge, MA: Harvard University Press.

Moore, M. H. (1995). *Creating Public Value: Strategic Management in Government*. Cambridge: Harvard University Press.

Moore, M. H. (2007). *Recognising Public Value: The Challenge of Measuring Performance in Government.* In J. Wanna (ed.), A Passion for Policy (pp. 91–116). Canberra: ANU E-Press.

Moore, M. H. (2003). *The public value scorecard: a rejoinder and an alternative to strategic performance measurement and management in non-profit organizations by Robert Kaplan*. Hauser Center for Nonprofit Organizations.

Nabatchi, T. (2011). *Four frames for understanding public values in administration and governance.* Paper presented at Public Management Research Conference, New York: Syracuse University.

Naidu, G. (2014*). Infrastructure in Malaysia: Investment, Growth and Policy Challenges.* In Malaysia's Socio-Economic Transformation: Ideas for the Next Decade. ISEAS–Yusof Ishak Institute.161-191.

O'Flynn, J. (2007). From New Public Management to Public Value: Paradigmatic Change and Managerial Implications. *Australian Journal of Public Administration, 66*(3), 353–66.

Palinkas, L., Horwitz, S., Green, C., Wisdom, J., Duan, N. and Hoagwood, K. (2013). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research, 42*(5), 533-544.

Parston, G. (2007). Unleashing public-service value through innovation. *Outlook*, (2).

International Journal of Law, Government and Communication
EISSN : 0128-1763
IJLGC
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001

Patala, S., Jalkala, A., Keränen, J. Väisänen, S., Tuominen, V. & Soukka, R. (2016). Sustainable value propositions: Framework and implications for technology suppliers. *Industrial Marketing Management, 59,* 144-156.

Pfitzer, M., Bockstette, V., & Stamp, M. (2013). Innovating for shared value. *Harvard Business Review.*

Porter, M.E. and Kramer, M.R. (2011). The Big Idea: Creating Shared Value. *Harvard Business Review,* 89, 2-17.

Prebble, M. (2012). Public Value and the Ideal State: Rescuing Public Value from Ambiguity. *Australian Journal of Public Administration, 71*(4), 392–402.

Queiroz, S. (2009). Stakeholders' theory and its contribution to the sustainable development of a tourism destination. *Sustainable Development and Planning IV.*

Quinn, R. E., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: towards a competing values approach to organizational analysis. *Management Science, 29*(3), 363– 377.

Ramirez, E., Gonzalez, R. J., & Moreira, G. J. (2014). Barriers and bridges to the adoption of environmentally-sustainable offerings. *Industrial Marketing Management, 43*(1), 16–24.

Rasagam, G. (1999). A "step" towards sustainable transport: a case study of Penang, Malaysia. *Transport and Communications Bulletin for Asia and the Pacific*, 33-47.

Rhodes, R. A. W. and J. Wanna. (2007). The Limits to Public Value, or Rescuing Responsible Government from the Platonic Guardians. *Australian Journal of Public Administration, 66*(4), 406– 421.

Rutgers, M. R. (2015). As Good as It Gets? On the Meaning of Public Value in the Study of Policy and Management. *American Review of Public Administration, 45*(1), 29–45.

Sadullah, A. F. (2008). *Road safety research programs in Malaysia in Proc*. Australasian Road Safety Research, Policing and Education Conf. 2008. Adelaide.

Savitz, A. W., & Weber, K. (2007). The sustainability sweet spot. *Environmental Quality Management, 17*, 17–28.

Spano, A. (2014). *How Do We Measure Public Value?* From Theory to Practice. In J. Guthrie, G. Marcon, S. Russo and F. Farneti (eds.), Public Value Management, Measurement and Reporting, Bingley: Emerald, 353–373.

Stoker, G. (2006). Public value management: a new narrative for networked governance? *The American Review of Public Administration, 36,* 41-57.

Stokols, D., Novaco, R., Stokols, J. and Campbell, J. (1978). Traffic congestion, Type A behavior, and stress. *Journal of Applied Psychology, 63*(4), pp.467-480.

Talbot, C. (2008). Measuring Public Value: A competing values approach London: The Work Foundation.

The Stationery Office (2012). Public Services (Social Value) Act.

Tolley, R. & Turton, B. (1995). *Transport systems, policy and planning*. 1st ed. London: Routledge.

Turrell, A. (2017). Applying Public Value Management Theory to Procurement. Public Value Management Theory, CIPS Knowledge.

Van der Wal, Z., Nabatchi, T. & de Graaf. G. (2015). From Galaxies to Universe: A Cross Disciplinary Review and Analysis of Public Values Publications from 1969 to 2012. *American Review of Public Administration, 45*(1), 13–28.

Veeneman, W. van de Velde, D. & Schipholt, L. (2006). The Value of Bus and Train: Public Values in Public European Transport Conference 2006.

International Journal of Law, Government and Communication
EISSN : 0128-1763
IJLGC
Volume 7 Issue 29 (September 2022) PP. 01-17
DOI 10.35631/IJLGC.729001
Veeneman, W., & Koppenjan, J. (2010). Securing public values in public transport projects: Four Dutch cases on innovation, 29 (1), 224-230.

Williams, I. & H. Shearer. (2011). Appraising Public Value: Past, Present and Futures. *Public Administration, 89*(4), 1367–1384.

Yin, R. K. (2003). *Case Study Research: Design and Methods*. Sage. Thousand Oaks, California. New York.

Younger, M. (2004). The Accenture public sector value model. International Conference on Changes in the structure and organization of social security administration, Cracow, Poland.