Pursuing transit-oriented development: Implementation through institutional change, learning and innovation

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Citation for published version (APA):

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EPILOGUE

Newly completed Arnhem Central Station, referred lovingly by official guides for the station redevelopment project as ‘the rail cathedral’, Arnhem, The Netherlands
“PLANNERS, ARCHITECTS OF CITY DESIGN, AND THOSE THEY HAVE LED ALONG WITH THEM IN THEIR BELIEFS ARE NOT CONSCIOUSLY DISDAINFUL OF THE IMPORTANCE OF KNOWING HOW THINGS WORK. ON THE CONTRARY, THEY HAVE GONE TO GREAT PAINS TO LEARN WHAT SAINTS AND SAGES OF MODERN ORTHODOX PLANNING HAVE SAID ABOUT HOW CITIES OUGHT TO WORK AND WHAT OUGHT TO BE GOOD FOR PEOPLE AND BUSINESS IN THEM. THEY TAKE THIS WITH SUCH DEVOTION THAT WHEN CONTRADICTORY REALITY INTRUDES, THREATENING TO SHATTER THEIR DEARLY WON LEARNING, THEY MUST SHRUG REALITY ASIDE.”

The pursuit of TOD remains a fascinating subject. Some cities and regions seem to achieve TODS implementation with deceptive ease while others struggle. Some chalk the failures and successes up to serendipity (Nonaka, 2007; Rye et al., 2011). Despite the parallels that can be drawn between planning and religion (Engwicht, 1999; Hall, 1988; Greed, 1994; Wildavsky, 1973); TODS implementation with its own belief system\(^1\), places of worship\(^2\), and prophets and believers\(^3\), is however not a simple matter of providence. Here, one should tread lightly as the requisite planning processes involve both individual and collective norms, cultures and belief systems (Wolsink, 2003). Therefore, the main research question in this project is not poised to debate why pursue TODS\(^4\), a relevant but much disputed angle; but rather to more constructively ask how to make it happen, if it is indeed desired.

In this Epilogue, the findings from previous chapters will be used to systematically address the research questions and propositions raised. In addition, initial findings of the last phase of research, the testing of lessons learned, are discussed. To conclude, reflections on the relevancy and limitations of the research design and methods, and the practice-academia research process are offered.
The research identified four propositions conceptualising TODS implementation (see Figure 5);

[1] Existence of a vicious cycle formed from mutually reinforcing formal and informal barriers,

[2] which can be overcome when targeted by a virtuous cycle of formal and informal incentives.

[3] This occurs through a process of institutional change,

The process of advancing from vicious to virtuous cycle is neither linear or permanent. It is possible to regress and strategic choices can be undone by undesirable habits.

The validity of these propositions is established through the following research questions and findings.
The research sought to understand how TODS implementation can be achieved through institutional change whereby institutional barriers can be overcome through the introduction of institutional incentives in a process characterised by learning and institutional innovation. This has been operationalised in the following five research sub-questions;

*How to identify the institutional barriers to TODS and their interdependency in a given context i.e., the Netherlands?*

A combination of deductive and inductive methods in a four-phase approach led to the identification of context-specific barriers to TODS in the Netherlands. Findings suggest that critical barriers do not occur independently of each other. A mutually reinforcing relationship between formal and informal barriers forming a vicious cycle was traced. Formal barriers of institutional complexity, fragmentation leading to lack of clarity in roles and responsibilities resulted from a composite of factors. These contributed to and amplified informal barriers such as a culture of indifference (towards transit), lack of urgency and knowledge sharing between stakeholders in the Netherlands. For example, lack of (financial) resources was considered critical by practitioners. However, this was symptomatic of governance and financial streams prejudiced towards roads and car-use. The lack of resources existed because financial regulations and funding system had imperfections resulting from and encouraged by an underlying preference for road infrastructure.

*How cases of TODS implementation elsewhere overcome similar barriers and what are the roles that institutional incentives play in this process?*

Evidence from the cases of Perth, Portland and Vancouver confirmed a positive relationship between mutually reinforcing formal and informal incentives lifting barriers resulting in a virtuous cycle conducive to TODS. The three theory-confirming cases showed four combinations of incentives at work that are important for regions seeking to make the shift and overcome barriers. These are (i) legal - financial, (ii) legal - socio-cultural, (iii) financial - socio-cultural, (iv) legal - financial - socio-cultural measures. The shift from a vicious to virtuous cycle relies on a supplementary feedback loop of learning and reflection. For example, practitioners from the above successful metropolitan regions still actively seek ‘better practices’ from other regions. Planners and policy makers are advised that these incentives, within both formal and informal institutions, must be well-matched to the barriers that need to be resolved. In addition, informal institutions should not be underestimated as changes in policies and regulations are dictated by the beliefs and norms of those supporting and enacting them.
What processes of institutional change occurred in cases of TODS implementation, what are the specific elements involved, and if and how they are related?

Evidence from the metropolitan regions of Perth, Portland, Vancouver and Copenhagen proved that processes of institutional change occurred through the existence of critical phases comprising of catalysts, triggering corresponding spontaneous and deliberate reactions and effects. This change was witnessed over time. The direction of change is determined by the accumulation of forces of change resulting in effects induced by various reactions. Findings show that it is possible to deviate from an existing institutional path (i.e. vicious cycle to virtuous cycle), given the right conditions such as political will and public support. Likewise, it is also possible to fall back into bad habits. For example, the deliberate change in the regions above led to a more conducive institutional context, whereby rules and regulations well-matched to societal attitudes encouraged innovations. The role of the individual actor here is not to be underestimated. For planners and policy makers, the strategic and effective capitalisation on the momenta of societal transformation and the involvement of key actors are determinant for directed institutional change.

How does learning facilitate institutional innovation resulting in institutional change, what patterns of learning and markers of institutional innovation can be identified in planning practice, and to what extent does the absorptive capacity of a given planning context affect learning and innovation?

Institutional change is intricately linked to learning and innovation as both cause and effect in an iterative process. Findings in the cases of Perth, Portland, Vancouver and Copenhagen indicated that the process of learning and innovation resulting in institutional change occurred at both individual and collective levels, and vice versa over time. Patterns of learning and markers of institutional innovation characterising this process were observed and identified in the planning practice of all cases. These were defined respectively as the individual and collective actions towards deliberate and positive changes occurring through new practices and meanings facilitated by creation and/or improvement of knowledge through existing and/or new and social and knowledge networks. For all cases, their absorptive capacity at individual and collective level - the ability to recognise, assimilate and apply new knowledge based on prior knowledge - was a prerequisite for learning and institutional innovation.
For planners and policy makers, the facilitation of a functioning linkage between practice, academia and politics with a consistency of beliefs, perspectives and experiences, and openness and willingness to learn are practical lessons derived from the above relationships and dynamics.

The answers to the above four research sub-questions revealed that TODS implementation is achieved through the lifting of mutually reinforcing formal and informal barriers forming a vicious cycle creating a non-conducive context by the introduction of a virtuous cycle of mutually reinforcing formal and informal incentives. This process requires institutional change that is found occurring through the elements of critical phases comprising of catalysts, triggering corresponding spontaneous and deliberate reactions and effects. Learning and institutional innovation are crucial to the above dynamic and iterative process. Their presence can be identified through patterns and markers that can be emulated provided that sufficient absorptive capacity is present. Confirmation of how TODS implementation is achieved however requires further testing in a negative context, e.g., the Netherlands.

How can these processes and elements in successful cases of TODS implementation be transferred towards the Dutch context?

Considering the barriers identified in the Netherlands and the importance of perception of actors and stakeholders in the process of resolution as shown in other cases, a method is proposed to apply the findings of the previous sub-research questions by first establishing the absorptive capacity of practitioners and then facilitating a learning process for practitioners to translate incentives found elsewhere towards their own context. Theoretically, institutional innovation can follow when these adapted incentives compatible to the barriers found are identified, assimilated and applied. However, the time and commitment required for this is beyond the scope of the four-year research project. Thereafter, the processes of institutional change are still subjected to the necessary conditions as evident in the findings above. An ex-post evaluation of the method proposed after a sufficient amount of time (i.e., 15 - 25 years for TODS implementation to be realised) would be required to determine its validity. The first steps in this proposed direction, as practiced within this research project and consortium, will be briefly described and discussed in the following sections, by way of an epilogue. Towards application and testing of findings
While researching multiple metropolitan regions that succeeded in their pursuit of TODS implementation; close knit communities comprising of practitioners, researchers and even politicians were observed. These individuals were not only well-informed of their own responsibilities but also those of their peers. Some interviewees shared that this was the way they operated, they needed to be well-informed not just about their own projects but also those of potential competition (neighbouring counties or cities). Understanding another’s person position seems crucial to being able to co-ordinate complex planning issues to help result in implementation.

The existence of a functioning social and knowledge network facilitates the learning process of absorbing and applying new information as discussed in Chapter 4, which in turn contributes to implementation. The example shown next is an attempt in applying and testing these new concepts with a two-step approach; i) the ability and potential to apply lessons from abroad as determined by ii) the capacity to learn for those involved.

For the last three scheduled consortium meetings, the format of a focus group workshop was proposed. The premise was simple. The hosting consortium partner would present, with the help of a local expert if necessary, an issue or ‘problem’ perceived to be impeding TODS implementation in their practice during a plenary session with some reflection from the researchers present. The participants are then split up into parallel sessions where they engage in thought experiments armed with information of possible incentives from other (foreign) contexts with which they should select and modify to make the incentives applicable to the problems raised, to the best of their own professional knowledge and experience. The list of incentives are presented as a menu and made available to participants a week before. The ‘problem’ is also described and any available information was shared in that preliminary information package. This is the first step of determining the participants peer group learning process through a thought experiment. The purpose of a small group, tasked with learning is to capitalise on the synergistic, i.e., knowledge generating, effect of focus group discussions (Stewart et al., 2007). This is also a proxy for the collaborative planning process that is typical of contemporary planning practice with multiple stakeholders with multiple perspectives and motivation.

A moderator (external or research team, depending on availability) would chair the sessions held in separate rooms. They facilitated the process of discussions but were forbidden to influence discussions. The researcher or research assistant would take an observational role operating the video camera and audio recording of the process while noting down the content of discussion with a group dynamics chart making note of content, tone, emotions and interactions between the group throughout the session.
The participants are tasked with coming up with applicable solutions to the ‘problem’, with one of the participants summarising it for the group at a plenary session at the end of the day. At the end of the parallel sessions, a survey form is handed out that determines the professional background, experience and responsibility of each participant and asking them to indicate which incentives appealed most to them and why. This is a part of the second step, where the individual absorptive capacity of the participants and learning process is determined.

The first two sessions followed this format. The third session was eventually redesigned due to reactions from practitioners that there was nothing to learn from foreign cases and that they preferred instead to hear and ‘learn’ about positive, local cases (i.e., the Netherlands). The hosting practitioners of the third session were convinced that foreign cases were mainly for inspiration and therefore not applicable to the local context in any form.

The following observations and reflections are based on an initial analysis of the various form of data collected from video recordings, audio recordings, survey forms and group responses.
Competency and capacity

A total of 20 survey forms were filled out. An initial scan of the results revealed a few interesting observations;

- Professional background: Most of the participants (practitioners from within and external to the consortium) did not have a planning background. The most related field mentioned was policy management or civil engineering. More unrelated fields mentioned included chemistry and history.
- Experiences with planning processes: Participants had some experienced with making policy documents (regional growth strategies) and operational tasks such as zoning permissions. However, none indicated they had participated or organised neighbourhood or community meetings (to either inform or canvass opinions or address concerns around planning decisions).
Attitude towards incentives (foreign): A majority of the participants indicated that certain foreign incentives attracted them including the ones modified or created during focus group discussions. There was a preference for financial-based incentives regarding taxation of inner city parking or a communal fund for TOD projects. However, all stated that the application of either for their own practice would be difficult, if not impossible.

The results are in sharp contrasts to what I have experienced with practitioners in the four foreign cases where TODS implementation has occurred. The practitioners encountered or interviewed in the four foreign cases expressed unbridled enthusiasm for new lessons or innovations from other contexts. They were of course not faced with problem solving of an issue close to their daily work nor were they surveyed afterwards to determine their interests. However, they were able to provide examples of innovations elsewhere that they have utilised in their own context, in an adapted form. The professional background and experiences with planning processes of experts in those four cases differed from the focus group participants. Experts in those cases were usually educated as planners (both land use and transport) and had a wide range of experiences with different planning procedures in numerous organisations.

An interesting point was that most of these experts in the four foreign cases had dual, if not triple roles. They were usually practitioners who were also involved in academic research and some were even activists or politicians parallel to their practitioner-academic role or at some point in their career. A question for future research arises here; does the planning process benefit from planning practitioner and researchers taking on a political roles either as activists or politicians? Liu (Tan et al., 2010) in referring to planning in Singapore, states that planners should leave politics to the politicians. On the other hand, solutions could be expedited if one individual encompasses multiple facets (planner, researcher or politician). However, there is also an ethical conundrum here as to social equity and the fair representation of public interests.

Perceptions and emotions

Three parallel sessions were conducted with an average of seven participants per session with a total of 28 participants. Participants were generally calm, interactive and constructive during all sessions. There were no interpersonal influence within group dynamics observed, there was an absence of dominant personalities and participants contributed equally.
The gender and age distribution of the groups were not controlled but the participants were allocated into groups such that a balance mixed of practitioners according to scale, sector and type was achieved with at least one local expert.

Majority of the conversations were on defining and clarifying the ‘problem’ within the discussion group. Local experts displayed knowledge on the complicated and complex intricacies of their problems. However, when other non-local participants suggested solutions i.e., through possible re-framing of the ‘problem’, these suggestions are usually quickly shut down by those more involved. Reasons given were that the solutions were ‘impossible’, i.e., not applicable or have already been tried or followed by another list of problems that were attributed to the proposed solutions. However, at the end of the sessions, all groups tried to reach some solution to be presented towards the plenary group indicating at least surface conformity (Stewart et al., 2007).

The focus groups discussions did indicate attempts at innovation from participants. For example, in one session some suggested a communal fund that would lighten the burden on municipalities that had too much land to develop in non-TOD locations but were financially obligated to do so. This was a modification from the list of incentives provided and was one of the solutions supported. Another innovation well-embraced was taxation on vacant commercial properties, even though the legality and feasibility aspects were refuted by experts present. These results show that some practitioners were more accepting of ideas and suggestions made by peers rather than those from elsewhere. Here lies an interesting extension for future research, the psychological and cognitive perspective to group based learning in planning practice. Participants in all three groups showed that they were well aware of the issues at hand, an important first step in trying to change, but the ability to recognise and apply new knowledge is still uneven across different participants.

These workshops were also excellent chances to experience how personal perception and emotions were determinant in discussions and the search for suitable incentives. It is more than understandable that those who are professionally and personally invested in the ‘problem’ tend to have very emotional responses which are contrary to reality at times (Schwanen et al., 2012; Talvitie, 2009; Wolman & Page, 2002; Willson, 2001). This is another important feature that practice-academia research needs to explore further, i.e. the effect of perception and emotion in planning processes.
REFLECTING ON THE RESEARCH APPROACH

A novel approach was taken in this research focusing on how TODS implementation is achieved, if it is indeed desired. Next, the methods used, the relevance of the research and its limitations will be reflected upon.

Relevance

A few knowledge gaps are identified and resolved in this research and they contribute to the field and societal debates around this subject by;

- Exploring the institutional aspects of TODS implementation through the comparative analysis of cases constructed from qualitative, empirical findings resulting in a conceptual model illustrating the shift from a vicious to virtuous cycle, which if desired, could be applied to other relevant planning contexts seeking similar change. This includes the consolidation of definitions and understandings on
implementation barriers in Chapter 1, on institutional incentives in Chapter 2, on institutional change in Chapter 3, and on the roles of learning and institutional innovation in Chapter 4.

- Proposing a systematic approach for case study selection based upon a shared point of departure (barriers experienced, see Chapter 1 and lifted through an explicit shift, see Chapter 2-4) between different contexts instead of the conventional selection based on quantitative values (size or density) which tends to negate the value of context-rich case studies. In addition, a rigorous data collection process triangulating context, interview and timeline narratives was applied. Both the case selection process and data collection protocol could be applied to other cases or subjects. A future research step could be examining cases where no change, or a negative change is observed.
- Refocusing on the role of the individual stakeholder as part of the collective in planning practice, while accommodating the issue of subjectivity and perception as discussed in Chapter 4. Here, discussions on planning and learning were also further advanced by combining insights from economics, political and management science.

Combining planning practice and research in a designed research trajectory which incorporates knowledge creation and exchange between researchers and practitioners to reunite planning theory with planning practice. This aspect is central in discussions within this dissertation. The application of the Kolb & Fry model to guide research design phases is also novel, especially with the first step towards testing beyond existing literature (see Research Design and Methods in Introduction). These theoretical discussions were only made possible by being grounded in observations on practice as captured in the findings.

**Limitations**

Learning and institutional innovation, if it occurs at all, is usually only visible after a decade or so. Time, in terms of decades, is required for such a research subject. It was therefore not possible to complete the Kolb & Fry model of experiential learning within the research trajectory of four years. Though initial steps have been made for testing of abstract concepts in new situations and real-life application, results are therefore still forthcoming.

There are also limitations to such an expansive approach where each phase is directed by the findings of the prior phase. The logistics of conducting such a research is enormous. There has been an incredible amount of information generated. Transcription of 57 interviews in two different languages meant a few hundred hours of work multiplied from almost 100 hours of audio and video recordings from interviews and focus groups. Not to mention the countless hours of preparations and planning required for the conducting of case study fieldwork, focus groups, workshops and evaluation meetings.

Given the intensive nature of the multiple, embedded in-depth case studies; there are several pragmatic limitations to be considered. Sufficient access to key stakeholders, experts and most importantly information (mode shift data, policy documents etc); has to be guaranteed and possible. The availability of data therefore depends upon access to official information sources, professional and academic networks. Language proficiency and time constraints should also be factored into the research process.
There are also constraints on the inclusion of practitioners within the Netherlands. Research should factor into consideration the fast changing political tendencies and interests which are unsurprising considering the political nature of TODS. This has implications on the involvement and commitment of the practitioners even though their involvement imbues the research findings with richness and grounds it with practicality. The research trajectory might not match political attention spans. A once popular research subject, enabling commitment (time and effort) of practitioners, might lose favour or become increasingly politically sensitive and thus not welcomed before the trajectory is completed. The inverse is luckily also possible.

The inclusion of practitioners and the grounding of research in practice is crucial to the development of planning theory. However, attention and effort had to be paid to ensure that a partially practice-sponsored research could still remain independent and unbiased.
“KNOWING IS NOT ENOUGH: WE MUST APPLY. WILLING IS NOT ENOUGH: WE MUST DO.”

JOHANNES WOLFGANG GOETHE
(ALSO ERRONEOUSLY ATTRIBUTED TO BRUCE LEE)
PRACTICE AND ACADEMIA

“Researchers need to engage more in practice (in ‘concrete experience’) and practitioners need to engage more in research (in ‘forming abstract concepts’)” (Straatemeier et al., 2010, pp. 581). The complexity of the issues within TODS implementation as highlighted in the previous chapters justifies the above plea for more engagement between practitioners and researchers. Planning is more akin to a design science than other fields where observations and experimentations are rather directed at explaining, instead of changing the world. It also differs from other design sciences where research could take place in a controlled environment. It is not possible to fully understand any issue without engaging with it, therefore planning practice needs to be included within planning research. After all, knowing how a combustion engine functions does not necessarily guarantee that one can operate a car.

One of the intrinsic values of this research set-up is how interactions with practice, both in the Netherlands and abroad have been facilitated. This research has involved planning practice and practitioners since the beginning. Research results, were consistently communicated through presentations, workshops and evaluation meetings. The research set-up has also allowed for the chance to interact and meet numerous practitioners from elsewhere interested in TODS implementation. From this perspective, the following discussions will reflect on the process of interaction between practitioners and researchers and initial observations and recommendations.

Co-creation of knowledge

Much of the knowledge in planning occurs as non-verbalised tacit knowledge that comes from years of positive and negative experiences. However, the process of acquiring such knowledge might involve emotional experiences that could cloud judgement and perceptions of reality, impeding critical reflection. In addition, planning practice in most cities and regions nowadays have fallen victim to shrinking personnel and resources. Many practitioners here and abroad complain about an ever increasing workload due to a decrease in available personnel and the increasingly complex procedures requiring financial accountability for every hour spent. Such conditions are not conducive to consistent and consequent critical reflection.

To counter this in the case of the Netherlands, research is regularly dispatched through to think-tanks, universities and consultancies by many municipalities, regions and provinces.

Copenhagen, Denmark
The qualifier of this increased interaction is however, the ability then to still conduct unbiased research when conditions are set by the practice partners and delivery of products are expected to fulfil certain expectations such as applicability to practice and political appropriateness.

**Action research**

A common criticism of the above mentioned action-research approach would be the influence of the researcher on the object of research. In this dissertation, the contractor of the research is simultaneously the object of research. The stipulated moments of engagement and contact between researchers and practitioners, in which knowledge is created and exchanged, makes the effects of synergistic learning on planning practice inextricable. The isolation and measurement of these effects require more controlled environments that would, however, be detrimental to the context-rich knowledge exchange that occurs in planning practice. Furthermore, demands made on the research to be applicable might prejudice research directions.
Presentations and discussions with practitioners and academics from the KEI research consortium, The Netherlands

An ex-post evaluation, perhaps by an external party, would be a recommended next step for those seeking to improve on this form of research.

This is however not to say that both planning research and practice should not embrace the pragmatic approach of such research opportunities. The onus here is then on the research team and consortium to set and agree on clear boundaries of responsibilities and conduct discrete expectation management right from the start.

**Group learning and dynamics**

There is a high possibility that peer-group learning occurs during these frequent interactions between researchers and practitioners and between practitioners and their peers. First, second and third loops of learning can occur at both individual and collective levels (Deyle & Slotterback, 2009; Buitelaar et al., 2007; White & Mayo, 2004; Cohen & Levinthal, 1990; Hammond, 1990). Research interactions within this research took place
in group settings due to the desired setting for individual and collective learning, and to minimise logistic complications’. Practitioners involved have remarked often that they enjoyed and benefitted from the critical reflection from the academics in addition to the opportunity to understand and learn about the operations of their peers and simultaneously reflect on their own work.

Nonaka et al. (2009; 1996) emphasises the role that the individual plays in knowledge creation of a firm and the need for a firm to facilitate these innovations. This is further confirmed by findings in Chapter 4, where learning and institutional innovation play important roles in institutional change. Translated into planning practice, this becomes a concrete reason to facilitate more individual and peer-group learning interactions through removing budgetary and personnel restrictions, thereby improving the capacity of the individual to learn and innovate.

**The ‘Science’ of Planning**

“Planning is a social science but also a social practice. Interaction between science and practice would thus seem essential for progress in planning. However, current developments seem to be pulling planning academics and practitioners further away from each other, with each becoming more self-referential and distant.” (Balducci & Bertolini, 2007, pp. 533). The ‘science’ of planning has been under discussion since most planning researchers tackle problems embedded within a larger societal context, resulting in a need to magpie from other branches of social sciences. The relation to the complex and real-world aspect of planning practice (as object of research) has complicated the establishment of planning as a legitimate science next to the more controlled habitats of natural sciences or other more conventional forms of social sciences.

**Grounded in practice**

A review of planning literature show a dearth of research grounded in practice, that is applied and tested within practice (Straatemeier et al., 2010). This is also the norm when it comes to issues regarding institutional change, as discussed in Chapter 3. On the other hand, much TOD literature tends to be the opposite of this with its descriptive, practice-based case studies, without systematic generation and testing of hypotheses. Considering that the planning processes of TODS implementation can span decades before realisation on the ground, testing in practice becomes difficult.
This is partly why this research was not able to test out the new concepts formed during research with the practitioners within the consortium as the last step within the experiential learning cycle (Kolb & Fry, 1974).

**Planning researcher**

In the Netherlands, there are many researchers who have only an academic knowledge of planning practice (i.e., zoning plans or the various policy consultation processes). This is in no way a reflection on their abilities as researchers but it presents a communication gap during such practice-academia interactions. Not all researchers are comfortable with such intensive interactions with practitioners. Likewise, practitioners are limited in their time and commitment to the research content. For example, research articles are not effective communication tools for practitioners because most practitioners would not and could not afford the time to read.

A language barrier has also been observed (i.e. English articles for Dutch practitioners). This contradicts a main form of communication in research. Happily, visual and verbal presentations are still accepted and embraced by practitioners. Here lies an opportunity for planning research and education; to nurture research and researchers that are flexible enough to communicate effectively while educating planners who are academically inclined.

Nonetheless, the research content and process benefitted greatly from the consistent inclusion of practitioners and planning practice. The findings were richer for the complexities captured and it is the task of the researcher to keep the findings manageable and applicable for both the practice and academic arenas.
BIBLIOGRAPHY


NOTES

1 Just like one experiences and learn about religion through various institutions, places of worships and the narratives of prophets; the same applies to TODS. Planners and researchers have go-to examples of what TOD is, where it is best realised and which document or literature best fulfill their subjective view on TOD and TODS. The conflict in beliefs is also evident in this subject. Just the different names and denomination alone is enough to cause confusion.

2 Places of worships of TODS are ‘best practices’ where planners and policy makers frequently visit to learn more about TODS in the hope of applying them in their own context. In Australia, there is Perth, Melbourne, Sydney or Brisbane. There are even more examples in the Americas and the rest of Asia. Of course, there are also the European classics in Munich, Zürich, Copenhagen and London. Trying to compare between each TOD is like comparing churches and temple of different periods, orders and form - a futile and tedious exercise.

3 Prophets are academics and politicians who advocate the virtues of TODS, the well-known figures would be individuals such as Calthorpe, Cervero, Dittmar, Dunphy, Ohland and Litman; to name a few. Believers are planners and policy makers who turn to TODS as an option to sustainable development without consideration to the market demands or externalities involved. The ‘believers’ tend to operate as a close-knit community.

4 The why of pursuing TODS has been much discussed from the economic, transport engineering and sustainable environment angles (see Introduction). The views are multiple yet divergent.

5 Refer to case study reports: http://niciskei.wordpress.com/ipvko-foreign-cases/case-study-reports/

6 Half of the participants of the first workshop were not able to stay after the practice presentation for the parallel sessions. They were sent a digital survey form and the response was dismal.

7 Our research program manager can attest to how difficult and tedious it is at times to get 15 - 20 practitioners in a room on a certain day for at least 4 hours of interaction. Not to mention the capital costs from the multiplication of hourly wages of all of those involved. The research might be valuable but there is a future research need to weigh off its effectiveness and monetary costs.