

World Conference on Transport Research - WCTR 2016 Shanghai. 10-15 July 2016

Legalizing the illegal parking, a solution for parking scarcity in developing countries

Truong Thi My Thanh ^{a,1}, Hanno Friedrich ^b

^a Vietnamese-German University, Vietnamese-German Transport Research Centre, Binh Duong, 590000, Vietnam

^b Kühne Logistics University, Assistant Professor Freight Transportation - Modelling and Policy, Großer Grasbrook 17, 20457 Hamburg, Germany

Abstract

The objective of this study is to understand how and to what extent illegal parking should be legalized, giving the benefit for parking users, urban planning, and transport planning. From literature, the policies and theories based on the lessons from other countries have provided the basis that can be applied in investigating a new parking management paradigm. Empirical surveys are conducted to examine the parking conditions, parking user's behavior and the consequence of illegal parking spaces in the core city center in Hanoi, Vietnam. Then, the requirements of para-parking (legalization of illegal parking spaces) are formulated including the change process that involves parking authorities, parking operators, and parking users. An in-depth analyze is undertaken to look at opportunities, risks and forms of para-parking and finally a proposal for a qualitative economic impact assessment of parking facility investment is given.

© 2017 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of WORLD CONFERENCE ON TRANSPORT RESEARCH SOCIETY.

Keywords: parking management, illegal parking, developing cities

1. Motivation and goals

The rapid development of motorcycle traffic in Asian developing countries is a unique phenomenon. During late 1980s-early 2000s, motorcycle population exponentially grew in Asian countries, for instances, China 25% per year, Vietnam 15%, India 11% and Indonesia and Thailand 9%. As a result, Asian cities experienced rapidly increasing and

¹ Corresponding author. Tel.: +84-915252553; fax: +84-0-650 222 0980.

E-mail address: tmthanh@vgtrc.vgu.edu.vn

large shares of motorcycle trips (as % of total motorized trips), remarkably 80-90% in Hanoi and Ho Chi Minh City, 60% in Jakarta and around 30% in Taipei and Bangkok (Morichi & Acharya 2013).

Motorcycle populations grew deteriorating the parking situation since the available space on the roads has remained unchanged. The construction of public parking spaces has developed slowly and cannot keep up with the demand. Therefore, many illegal parking spaces (unregistered spaces used illegally by individuals who offer them to parking users and collecting illegal parking fees) have been created in those cities in the last years.

Illegal parking should be controlled by intensive parking supply paradigms. Many academics attempted to outline the paradigm shift in parking supply management comprehensively. Litman (2006) characterized the old paradigm as “abundant and free” parking and the new one as “optimal parking supply and price”. Martins (2005) distinguished four types of parking policies and articulated a policy shift from the paradigm of “merely predict and provide” to “manage parking quantity and location” within OECD² countries. Barter (2012) presented a typology of parking policy as “conventional supply-focused, parking management, and market-based approaches”. Although the transformation in practice has occurred throughout the world, debates remain on whether parking regulation or deregulation (market-based approach) should lead future parking reforms (Ferguson, 2004; Barter, 2011; Shoup, 2005). In spite of these debates, scholars seem to agree that, in urban areas, particularly downtown areas, parking should not be fully provided (Roth, 1965; Shoup, 1997; Verhoef et al., 1995). Generous parking provision is now perceived as part of a cycle of increased automobile dependency (Willson, 1995; Litman, 2006). The “conventional supply- focused approach” that views scarcity as the core issue and ensures adequate parking supply by enforcing minimum parking requirements has been widely criticized (Shoup & Pickrel, 1978; Shoup, 1999; Mukhija & Shoup, 2006; Barter, 2011). Instead, parking supply restrictions have become popular and accepted as an effective instrument in limiting car use (Weinberger et al. 2012). Many cities, not only in Europe but also in North America, have witnessed a policy shift from “minimum parking standard” to “maximum parking standard”. The former sets up the minimum level of parking for each project to ensure adequate parking supply, whereas the latter imposes a ceiling on parking provision. Although they do not impose a maximum parking standard, a number of other cities have eliminated or reduced the minimum parking standard. Shoup (2011) found that 129 cities in the US reported the abolishment of minimum parking standards in their downtown areas between 2005 and 2011. More than 20 cities, such as New York, Los Angeles, San Francisco, London, Paris, and Sydney, among others, in OECD countries have applied maximum parking standard to certain kinds of development (Martins, 2005; Kodransky & Hermann, G., 2011). Concurrently, accumulating empirical evidence supports that restraints on parking availability, in terms of either quantity or location, have noticeable effects on deterring private vehicle usage and ownership (Van Ommeren et al. 2014; Weinberger et al. 2009; Hensher & King, 2001; Rye et al. 2006; Manville & Shoup, 2010; Marsden, 2006; Su & Zhou, 2012; Weinberger, 2012; Guo, 2013).

Nonetheless, parking as a transport infrastructure has its peculiarity in provision. The majority of parking spaces are actually offered by property developers, except on-street and public parking facilities, which only account for a small proportion of the total. Therefore, the willingness of developers to provide parking facilities can influence the actual parking provision. This willingness is mainly based on the trade-off between cost and benefit. Engel-Yan et al. (2007) argued that reductions in parking standards do not necessarily lead to expected reductions in parking supply because the level of parking that a development eventually provides depends also on many other factors, such as land availability, operation and maintenance cost, and potential revenue. Their study, which was based on a survey of 497 sites, found that some developments, such as general offices, medical offices, and general retail stores, tended to provide less parking than required, whereas others, such as banks and large grocery stores, tended to offer more parking than required (Engel-Yan et al. 2007). In fact, the discrepancies between policy requirements and the willingness of developers have been frequently reported (for the earlier study, see Willson, 1995). Conventionally, minimum parking requirements, which aim to avoid parking spillover and chaos, are based on the assumption that developers will rationally reduce parking supply without legislative regulation. Some studies (Manville & Shoup 2010; Guo & Ren 2012) have found that the actual on-site parking supply show a reduction in developments exempted from the minimum parking standard, which may indirectly support the argument on the reluctance of developers to provide parking. However, this assumption on the behavior of developers seems arbitrary and untenable when the

² OECD: Organization for Economic Co-operation and Development.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات