Stakeholder Perspective on Improving Barriers in Implementation of Public Bicycle Sharing System in Amravati

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Abstract- *Cyclists, while relatively small in proportion with respect to motorized vehicles, have a high level of vulnerability, creatinga significant need to better understand the characteristics specific to this user group. Despite receiving worldwide recognition as a key climate smart transportation strategy to promote sustainability, low carbon society in European cities, its acceptance in Asia, with the exception of China, has been shockingly restricted Using a survey-based survey design technique, this study investigates diverse persons' perceptions of the perceived advantages and identifies elements that have assisted or hampered PBSP adoption. It's Allso Trees to The Estabilish Un Empirical Foundation to Better Understanding the Localization of Bike Sharing Programs. Recognizing Ho PBSP May BSED Locally. In essence, the findings show that technical constrictions were recognised to be most restrictive & dominant barriers, while there is general agreement that various types of facilitators help bike share implementation; additionally, environmental advantages top the list of benefits, while economic benefits rank lowest, providing vital information to inform drawing, marketing, & comms strategies for PBSP introduction within in the Asian context.*

Keywords- Data Collection; Worldwide web; Document delivery, Bicycle sharing

I. INTRODUCTION

Planners and politicians in many countries seek to increase the proportion of trips made by cycling. However, this is often challenging. In England, a national target to double cycling by 2025 is likely to be missed: between 2001 and 2011 the proportion of commutes made by cycling barely grew. One important contributory factor is continued low investment in cycling infrastructure, by comparison to European leaders. This paper examines barriers to cycling investment, considering that these need to be better understood to understand failures to increase cycling level. It is based on qualitative data from an online survey of over 400 stakeholders, alongside seven in-depth interviews. Results:

Many respondents reported that change continues to be blocked by chronic barriers including a lack of funding and leadership. Participants provided insights into how challenges develop along the life of a scheme. In authorities with little consideration given to cycling provision, media and public opposition were not reported as a major issue. However, where planning and implementation have begun, this can change quickly; although examples were given of schemes successfully proceeding, despite this.

II. LITERATURE REVIEW

Stefan Seuring(2004)

Within recent years, various concepts have arisen in environmental management that directly address the flow of material (and information) along life cycles or supply chains. These include industrial ecology (IE), life-cycle management, closed-loop supply chains, integrated chain management and green/environmental or sustainable supply chain management. Building on definitions the concepts are discussed and analysed using the three criteria while also identifying a distinctive feature of each approach.

Anthony Halog et al.(2010)

Systems perspective, integrative, and holistic approach for sustainability assessment which attempts to link basic science and technology to policy formulation. Framework adopts life cycle thinking methods; stakeholders analysis supported by multi-criteria decision analysis (MCDA) and dynamic system modelling. Critical sustainability criteria, indicators and metrics can be identified and further modelled using system dynamics or agent based modelling and improved by data envelopment analysis (DEA).)

Matthias Finkbeiner et at.(2010)

Sustainability is accepted by all stakeholders as a guiding principle for public policy making and corporate

strategies. The biggest challenge for most organizations remains in the real and substantial implementation of the sustainability concept. This paper explores the current status of Life Cycle Sustainability Assessment (LCSA) for products and processes.

Zhili Liua,b,et al. (2012)

Bicycle sharing systems have frequently been cited as a way to solve the "last mile" problem and connect users to public transit networks. The public bicycle system in Beijing suffered a decline after the 2008 Olympic Games. This paper analyzes the causes for failure of the first generation of public bicycle network in Beijing**.**

Yifan Zhao,et al.,(2013)

A smartphone-based Public Bicycle Sharing System for healthy life is developed. Green Bicycling aims to improve the user experience and encourage cyclist to use BSS. It allows cyclist to query not only the current information of rental spots, but also the forecast state. A quantitative measurement of calorie consumption in a riding trip is introduced so that cyclist could get intuitive understanding of how much calorie reduction from the riding.

Marie Vogel ,et al., (2014)

Vélo'v have been available in Lyon, France, since 2005 and are one of the first major public bicycle sharing systems (BSS) implemented in Europe. With up to 7 million trips in 2013 and around 50,000 annual users plus occasional users, Vélo-v have increased bicycle use in the city by 50%. We characterise user mobilities and produce a user typology based on cluster analysis, relying on intensity and on annual and weekly temporal patterns**.**

Junxiao et al. (2014)

A proposed framework will enable public and private sector stakeholders to possess an ameliorated understanding of the factors that are critical to successfully implementing a PPP contract strategy. Project success is often expressed by the quality of the product and project management success. A life-cycle CSF framework with embedded "learning mechanisms" is developed.

Inês Fradea,*et al.(2014)

The main objective of this methodology is to relate the demand of bike-sharing systems with external characteristics that affect the bicycle usage in order to obtain its territorial distribution. The method is applied to a middle size Portuguese city, Coimbra. Due to the limited information available in Portugal this paper will focus on the determination of demand based on the experience of other countries.

Scott Smith,et al.(2015)

Livable communities are inextricably linked with the provision of opportunities for active and/or non-motorized transportation; i.e., walking, cycling and their variants. An emerging phenomena that is working within the broader movement of active transportation is public bicycle sharing systems (BSS) There are valid concerns that traditionally underserved populations will again be marginalized or unable to share in the benefits of existing and future bicycle- and pedestrian-oriented infrastructure.

Lihong Zhanga ,et al., (2015)

Public bicycle sharing, as a Product Service System, needs to be carefully developed to appreciate the quality and timely interplay between the physical design of the system and the provision of services being offered. China is suffering from the severe negative consequences of high private vehicle usage in large and densely populated cities. There is great potential for such a green form of travel to be part of public and private transportation**.**

Iderlina-et al. (2016)

Public bicycle sharing programs (PBSP) gaining global attention as important climate smart transport strategy to support sustainable, low carbon societies in European and North American cities. Its uptake in Asia, except for China, has been unexpectedly limited. This study examines the perception of various individuals on the perceived benefits, and identify factors which have facilitated or constrained the implementation of PBSP.

Amtul et al. (2020)

Reservation based Secure Smart Parking System (LA-RSSPS) has been proposed to solve the problem of finding parking spaces for vehicles on public roads. The system divides the parking area into 3 parts - one for conventional parking, one for vehicles with reservation and the other for the vehicles with and without reservation. Learning automata is used in the proposed system to determine the percentage of the parking space for conventional parking. The AES-256 encryption algorithm is used to provide security for the details provided by the user during reservation process. Good put value is maintained for

each vehicle which increases or decreases the chances of getting a reservation.

Trisalyn Nelsona et al. ,(2020)

New technologies such as GPS-enabled smartphones, crowdsourcing tools, and social media are changing the potential sources for bicycling data. We assess crowdsourced data used to map ridership (fitness, bike share, and GPS/accelerometer data), assess safety (web-map tools), map infrastructure (OpenStreetMap) and track attitudes (social media). For each category of data we discuss the challenges and opportunities they offer for researchers and practitioners.

Jianguo Chen1, et al. (2021)

Bicycle Station Dynamic Planning (BSDP) aims to provide the optimal bicycle station layout for the Dockless Public Bicycle-sharing (DL-PBS) network. In the BSDP system, candidate bicycle stations are clustered from each spatio-temporal subset of the large-scale cycling trajectory records. Then, graph models across time periods are combined to create a graph sequence model. The GGNN model is used to train the graph sequence data and predict bicycle stations in the next period. Recommended bicycle station layouts are fine-tuned according to the government urban management plan.

Anthony Halog * and Yosef Manik(2021)

The need for an integrated methodological framework for sustainability assessment is urgent due to increasingly complex environmental system problems. The framework can provide new ways of integrating knowledge across the divides between social and natural sciences as well as between critical and problem-solving research. The study aims to develop an integrated methodology by capitalizing the complementary strengths of different methods used by industrial ecologists and biophysical economists.

III. METHODOLOGY
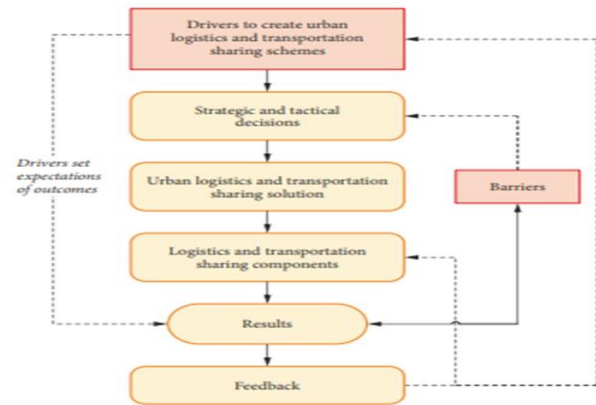
1. Having established the potential for greater collaboration the paper now turns to investigate
2. which drivers and barriers are related to the implementation of sharing logistics and urban freight transport policies involving multi-stake- 918 D. Paddeu et al. Multi-stakeholder collaboration in urban freight consolidation schemes: drivers and barriers ... holders, such as UCCs.
3. Due to the key role assumed by receivers in the success of the implementation of sharing logistics systems highlighted in the previous sections, the focus of the paper is their perspective.

Details of methodology

The description of the different components of the model and of their respective relationships is provided below (Figure 1): – Drivers to the creation of urban logistics and transportation sharing schemes; this part provides compelling reasons for partners to join the scheme. According to Gonzalez-Feliu and Morana (2011), in the case of urban freight distribution, environmental objectives (such as CO_2 reduction), economic efficiency, legislative reasons (e.g. access restrictions to the city centre, incentives to the sharing approach, etc.) and common interests are the main motivators to join a sharing scheme. Drivers strongly influence strategic and tactical decisions for all the stakeholders involved in the urban environment; – Urban logistics and transportation solution; we consider UCC as a sharing solution to make urban freight distribution more efficient.

Logistics and transportation sharing components; this part considers the components of an urban sharing scheme. They strongly depend on the type of sharing solution system considered. Components include: stakeholders, vehicles used to make the deliveries, logistics facilities; – Results are influenced by the sharing system components and by the

barriers to the implementation of sharing schemes. Also, outcome expectations are set by drivers. Results provide feedback about the efficacy of the specific sharing scheme consider

IV. CONCLUSION

The report first reviewed how the development and implementation of bicycle sharing schemes have evolved in different parts of Asia. While experiences of one city to another vary and subject to specificities of the context, the cultural, geo-graphical, economic and political situation of apotential PBSP coverage area needs to be assessed. An online survey rolled out in collaboration with Clean Air Asia Center elicited self reported perceptions from a di-verse set of stakeholders on benefits, barriers and facilitators of bike share schemes. The lack of or fragmented cycling infrastructure within the Asia's urban landscape limits the attractiveness of active transport. Survey respondents are convinced that soft measures can facilitate bike sharing implementation. Government policies need to be updated to include a "Share the road policy", "create budgetary allocations for NMT" and "integrate land use and transportation in their local planning process".