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ADAPTABILITY OF PLATFORM COOPERATIVISM IN THE MALAYSIAN E-HAILING SECTOR: A CONCEPTUAL STUDY

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ABSTRACT

Malaysia's taxi sector is beginning to question platform capitalism. *Penyatuan Pemain Industri Pengangkutan Darat Malaysia (PPDM)* has called for the creation of a new government-led platform to replace the online platform companies that have exhausted the taxi industry ecosystem. However, discussions with the Malaysian Government remain parallel. This article uses the theoretical concept of platform cooperativism to explore its adaptability and the potential for transformation from platform capitalism in the Malaysian e-hailing sector. Through the development of the conceptual framework, a commons-based democratic management governance system based on platform cooperativism is developed to move away from platform capitalism, which is a corporate-driven profit-making and management structure. Four key elements for the proper management of platform cooperativism: governance, economy, technology and society can be fully adapted to the demands of PPDM by transforming them from the private sector. Consequently, the realisation of platform cooperativism has the potential to manage the Malaysian e-hailing platform as a shared asset for users and to enable the circulation of benefits within the community.

Keywords: *: platform cooperativism, gig economy, sharing economy, e-hailing, taxi industry*

INTRODUCTION

With the rise of the sharing economy, the efficiency of temporary access to various assets through peer-to-peer (P2P) platform applications are being promoted. The flourishing of this innovative app-based P2P business model can be seen in the global spread of familiar services such as Uber, Airbnb and Task Rabbit. In Malaysia, the e-hailing industry in particular, has benefited from the sharing economy. Since the legalisation of e-hailing services in July 2017 with the amendment of the Malaysian Land Public Transport Act and Commercial Vehicles Licensing Board by the Malaysian Parliament (Teo et al., 2018), the industry has seen the creation of several platform firms and workers such as Grab and Mycar. At the same time, the flexibility of this task-based job and the low entry barriers to participation in private car sharing are also regarded as gig work that generates additional income on a task basis. According to the World Bank, approximately 26% of the working population in Malaysia are gig workers, including self-employed and independent contractors, the majority of which are e-hailing drivers (Bank Negara Malaysia, 2020).

On the other hand, new adaptations of traditional existing services can be subject to regulation. In the case of e-hailing, a discrepancy arises as to whether the

worker registered on an unlicensed platform is subject to the same regulatory requirements as licensed professional taxi drivers or firms (Cohen & Kietzmann, 2014). Such legal inadequacies and ambiguities can lead to inadequate social security and benefits for all workers, such as minimum wage, insurance, and safety (Minter, 2017) in the taxi industry and huge profits for platform firms. Since gig workers, who comprise the majority of platform workers in Malaysia, are recognised as independent contractors, they cannot receive adequate social security. In order to supplement this ambiguity in labour law temporarily, the Malaysian government has set up a social protection system for them, such as the Social Security Organisation (SOCSO) and the EPF i-Saraan. However, these schemes only provide minimum compensation from the Malaysian government to gig workers. In other words, security is left to government agencies, whilst the platform firms continue their exploitative business model of maintaining informal employment and generating further profits (Zahiid, 2021).

Broad surveillance and hectic work with the concept of sharing are often derided as platform capitalism (Sandoval, 2020). Concerns about corporate profit-oriented business models and their monopoly have triggered Malaysian taxi and e-hailing drivers to draft new ideas. Penyatuan Pemain Industri Pengangkutan Darat Malaysia (PPDM), an association of association leaders, operators and drivers in the transport industry has been demanding a new government-managed e-hailing service available throughout Malaysia to the Malaysian Government (Lim, 2022). The profit-driven business of platform firms disrupts the taxi industry ecosystem and the harmony between taxi drivers and e-hailing drivers. PPDM calls for an end to the double standards that exist in the industry and a move away from applications owned by private sectors to encourage the development of the industry through consistent institution building and profit sharing. However, the Government has not shown any willingness to engage in dialogue with PPDM's demands in its government memorandum and letter to the Ministry of Transport (Lim, 2022).

Based on the sequence of events, the empowerment of workers in the taxi industry, including PPDM, to respond to the Malaysian government's reluctance and platform capitalism is essential. In order to distinguish ride-sharing economic activity from platform capitalism and to transform it into a sustainable and equitable system, this study examines the adaptability of platform cooperativism. Scholz (2016) states that the exhaustion of industry and workers in platform capitalism can only be addressed by shifting ownership of the platform and building democratic governance and solidarity therein. The platform cooperativism is compatible with commons democratic management in the sharing economy, such as e-hailing. However, research on platform co-operatives and their adaptability to the sharing economy industry is lacking and more empirical research needs to be conducted. This article understands the structure of platform cooperativism and discusses its adaptability based on PPDM requirements.

As a result, the following academic and practical contributions are expected. Academically, it provides new insights into how elements in the construction of platform co-operatives can be adapted to developing e-hailing organisations. Practically, it proposes the possibility of co-existence between platform cooperativism and the e-hailing industry to enable creative and sustainable development for taxi-related organisations and taxi/e-hailing drivers seeking to move away from a corporate-centric platform democracy.

In this article, the main method used is a systematic literature review. Based on the literature review, a conceptual framework and items for the practical construction of platform cooperativism are then formulated. Subsequently, the adaptability of platform cooperativism to the demands of PPDM is mentioned. Finally, conclusions and directions for future research are presented.

LITERATURE REVIEW: PLATFORM COOPERATIVISM

The fundamental ideas of platform cooperativism are formed by Trebor Scholz. Scholz (2016) describes the potential for the transformation of a true peer-to-peer sharing economy based on the commons through democratic governance exerted by co-operatives under platform capitalism (Papadimitropoulos, 2021; Scholz, 2016). Platform cooperativism aims to build co-operatives that are democratically owned and governed by the community members such as co-owners, replacing intermediary platform firms in the sharing economy (Sandoval, 2020). This idea arose

from the possibility of transforming the uncaring labour practices in the co-operative sharing economy under free market competition into a humane and just ownership model (Scholz, 2014). As Scholz (2014) points out, local co-operatives can change the main beneficiaries of the platform's benefits by creating their own apps, from owners and investors to participants involved in app management and operation. Platform cooperativism is essentially established as a multi-stakeholder co-operative that includes "consumers, providers, investors and producers" (Papadimitropoulos, 2021). Table 1 suggests basic principles in the establishment of platform cooperativism (Scholz, 2016).

Table 1 Basic principles in the establishment of platform co-ops (Modified from Scholz, 2016)

Principles	Descriptions
Re-consideration of ownership	Returning to the origins of the sharing economy, where ownership is abandoned and access is provided / Contemplating collective ownership of internet networks under local communities.
Decent pay and income security	Guarantee of fair pay and benefits necessary to earn a living / Transparency of algorithms.
Management transparency and data portability	Operational transparency of the co-operative (e.g., publication of all budgets, data handling processes).
Appreciation and Acknowledgement	Good working atmosphere /Ability of workers to communicate with platform operators and owners and environmental arrangements.
Co-determined work	The labour platform, workers and operators know the whole process, including how to use the platform from its programming, leading to a deeper understanding of the workflow.
Setting a protective legal framework	Need for legal support in platform co-ops / Consideration of corporate-focused legislation (e.g., co-ops' desire for local regulation and relationship with regulators to maintain fair competition / Antitrust and multi-homing legislation) / Political, legal and economic control of shareholder firms/ Risk that collusion between the system and the government promotes a system of corporate control and leads to the elimination of the middle class.
Adequate worker protection and benefits	Building a system in which not only platform workers and gig workers but also workers who traditionally work in the sector are guaranteed benefits and social protection.
Protection against arbitrary action	Arbitrary disciplinary dismissals without explanation to workers and workers' operations are influenced by consumer reputation systems / Changing working platforms does not allow workers to capitalise on their reputation / Installation of own decentralised reputation and identity systems for workers.
Denial of excessive workplace monitoring.	Lack of dignity at work due to excessive review and evaluation systems
Right to log-off	Having a set boundary between the platform co-operative and digital work / Defining a vision for the co-operative and establishing a work-life balance to achieve it.

However, these basic principles are flexible and their adaptability depends on the respective platform and sector. In a study by Papadimitropoulos (2021), the German e-commerce firm, Fairmondo has adopted seven principles: voluntary and open membership; democratic membership management; economic participation of members; autonomy and independence; education, training and information; co-operation between co-operatives; community interest. From an e-hailing context, platform co-operative-based taxi platforms such as GreenTaxi Co-operative and Alpha Taxis aim to compete with unicorns, such as Uber through the development of their own apps and technology integration and equity sharing (Schneider, 2018). Furthermore, Foramitti et al. (2020) examine Fairbnb, a platform co-operative that aims to reshape the Airbnb business model. Fairbnb sets out to create a viable alternative to

share, manage, operate and democratically govern revenue more co-operatively with local communities. Whilst this business model creates a sustainable relationship that is cohesive with the local economy and includes transparent and co-governance with local authorities, how to overcome several concerns such as its limited growth, friction with a core value, continued profit building in a competitive market and winning the support of local communities are significant challenges (Foramitti et al., 2020). On the other hand, rethinking the value of co-operatives from traditional platform-centred business operations may improve co-operative governance and the business itself but also contribute to the development of a new social and cultural paradigm (Cobo, 2020). It is possible for the products produced by hybrid, networked, horizontal and connection-oriented forms of co-operative organisation to be superior to those produced under market or state control (Kostakis, 2018). This justifies the potential of the platform co-operative concept to build new mechanisms suitable for maximising the production and exchange of digital commons that deviate from state and corporate control (Kostakis, 2018).

Morell and Espelt (2018) provide important considerations for platform co-ops in creating practical platforms that fit them. They point out that traditional sharing platforms lack an evaluation system for sustainability and pro-democracy qualities, the existence of hypocritical collaborative platform models, and describe the main important segments such as governance and economy, knowledge and technology policy, and social responsibility and impact for assessing the pro-democracy nature of collaborative economic initiatives. They call this analytical framework commons-like collaborative economy analytical star framework, consisting of three main segments: governance and economics, knowledge and technology policy, and social responsibility and impact.

Governance and Economic

Governance System

1. How the value gained by unions and communities is reflected in the governance of the platform. Contribute to the process of organisational decision-making and platform participation and the development of political rules.

Economic System

1. Types of funding models for operations (Private capital, ethical finance, crowdfunding, matching funding).
2. Transparency of business models (mechanisms, pursuit of profitability, creative value distribution, payment of capital, workers' rights).
3. Fair and responsive remuneration systems (stable income, predictability of pay).
4. Maximisation of workers' profit rights (protection of workers from arbitrary action, work environment, right to disconnect from the community).

Knowledge and Technology Policy

Knowledge Policy

1. License management (free license or proprietary).
2. Data types and download capabilities (open data or not/download format).
3. Data properties (algorithms, programmes, data transparency, privacy, intellectual property protection, restrictions on data abuse and collection).
4. Data portability/reputation.

Technical Policy

1. Type of software and its license (free or proprietary).
2. Technology architecture model (distributed (e.g., blockchain) or centralised (e.g., service software).

Social Responsibility and Impact

Social Responsibility

1. Externalities (social exclusion and social inequalities).
2. Responsibility to ensure equity (gender, health and safety standards).
3. Environmental considerations (rebound effect through reduced emissions and waste, minimisation of consumption through efficient use of resources, consideration of origin and conditions of production of provided assets, recycling).

Social Impact

1. Protection of fundamental human rights through policies (preservation of the rights of residents and the common good of the city)

Through an observation of ten democratic platforms in Barcelona, Spain, Morell and Espelt (2018) found that no platform met all the points, but an alternative

to operations with appropriate collaboration between digital commons and citizens led co-ops is underway beyond the framework of unicorn sharing platforms in Barcelona. Whilst this movement suggests that the development of sharing platforms based on platform cooperativism has potential, its sustainability and how it can be scaled up would be concerning to be discussed (Morell & Espelt, 2018). This can be seen as a challenge to contemporary capitalism and requires organisational forms on a larger scale that are highly structured in transferring value to the commons. Specifically, a move to encompass and protect platform cooperativism, and ultimately the interlocking trinity of civil society, market actors and the state, would lead to the best use of the contemporary version of digital commons (Bauwens & Pantazis, 2018) in the context of sharing economy.

CONCEPTUAL FRAMEWORK

This study develops a conceptual framework for the transition from platform capitalism to platform cooperativism based on inductive qualitative research nature through a narrative literature review. As explained in the introduction, contemporary platform capitalism is structured in such a way that firms have real control over sharing capital, and the firms get most of the profits generated by the workers who bring them in.

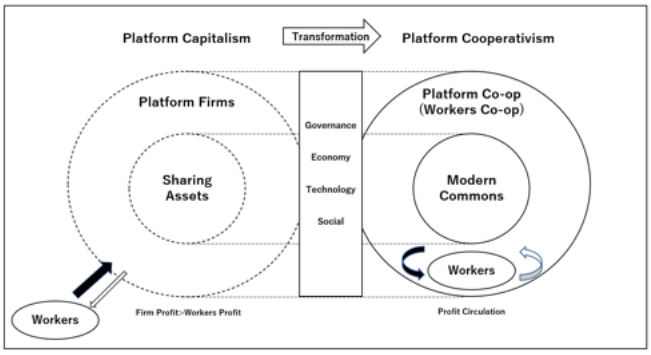


Figure 1 Conceptual Framework

The reason is that the digital technology system at the heart of sharing businesses basically follows a capitalist mechanism in which firms create profits from labour by valuing capital over workers (Spencer, 2017). Alternative governance that democratically manages sharing assets from this traditional capitalist structure is platform cooperativism. Managing sharing assets as modern commons in co-ops under the concept of platform cooperativism would enable a transition from a labour-exploitative business model for corporations to a profit-circulating business model for workers. Unlike traditional commons-managed communities based on natural resources, the platform co-op and the workers' co-op based on platform cooperativism will be able to function as organisations managing shared resources such as e-hailing and accommodation. On the other hand, platform co-ops must use applications that replace traditional platform firms and properly manage the people engaged in them.

Table 2 Components for the Platform Cooperativism (Modified from Scholz, 2016) and Morell & Espelt, 2018)

Components for Platform Cooperativism (Workers' Co-op)	
Governance	Consideration of community-based collective ownership of the commons. Reflections of the appropriate value obtained by the co-operative. Contribute to the decision-making and platform participation processes of the organisation and to the development of political rules. Set a protective legal framework for platform co-operatives. Considering legislation to maintain fair competition. Transparency of the business model (mechanisms, algorithms, pursuit of profitability, creative distribution of value, payment of capital, workers' rights). Co-decision-making processes for a deeper understanding of workflows. Adequate worker protection and benefits for community members (for decent wages and secure income).
Economy	Funding models for operations (private capital, ethical funding, crowdfunding, matching funding). Fair and responsive remuneration systems (stable income, wage predictability). Maximisation of workers' rights to benefits (protection of workers from co-ops' arbitrary action, working environment, disconnection of rights from the regional communities).
Technology	License management. Data types/properties. Types and their licenses. Technology architecture model.
Social	Work/life balance. Consideration of externalities. Protections against arbitrary community-based behaviour (gender, health and safety standards) Environmental considerations. Protection of fundamental human rights through policies. Refusal of excessive workplace monitoring.

Table 2 constructs the main significant components: governance, economy, technology, and social to establish the platform cooperativism based on the studies by (Scholz, 2016; Morell & Espelt, 2018). These components provide clues for creating a more practical co-ownership model derived from the aforementioned conditions for the establishment of the modern commons.

As a principal premise, it is important to identify the community basis for collective ownership of the commons. After the determination of the infrastructure, it is necessary to formulate a system, including organisational decision-making, platform participation processes and political rules, in line with the objectives of the co-ops. In particular, transparency of the operation (structure, algorithms, the pursuit of profitability, creative distribution of value, payment of capital, workers' rights, etc.) should be discussed with all union members. The introduction of a joint decision-making process during the workflow creation phase should be considered for a deeper understanding of workflows. In addition, adequate labour protection (decent wages and secure income) and benefit structures for participants should be built in. From a legal perspective, there is an urgent need to set up a protective legal framework for co-ops. Specifically, it is necessary to secure regulatory support matched to co-ops through close cooperation with regulators to maintain fair competition. This is a counterbalance to the traditional corporate-oriented legal regime of corporate domination through political, legal and economic control of shareholder companies and government collusion.

From an economic perspective, a number of considerations that need to be taken into account to run co-ops efficiently and sustainably. As a prerequisite, systematic consideration needs to be given to how the union is financed in its operation. For instance, there are private capital, ethical financing, crowdfunding and matching funding. In relation to governance systems, transparency of the co-op's value creation model is required. This includes fair and prompt remuneration systems for co-owners, such as stable income, value distribution and wage predictability. As platform co-ops have to guarantee the livelihoods of workers on behalf of platform firms, it is essential to guarantee the wages they need to earn a living. In addition, there must also be a high-benefit right to the welfare of workers belonging to the union. For instance, setting up a system of protection against arbitrary action against workers by unions (e.g., decentralised evaluation systems and identity systems to prevent dismissals without notice and evaluations in user-oriented ratings), the development of the working environment and independence of rights from the outside community.

Platform co-ops need to create their own management platform to replace traditional platform firms. Regarding the platform creation, Morell and Espelt (2018) highlighted the significance of the combination of technology management and knowledge policy, such as licence management (free licence or proprietary), data type (open data or not/format of download) and data characteristics (algorithms, programmes, data transparency, privacy, IPR protection, data abuse and collection restrictions), software type and its licence (free or proprietary), and technology architecture and models (decentralised (e.g. blockchain) or centralised (e.g. service software).

Platform co-ops, which manage the modern commons in an alternative corporate way, need to fulfil their social responsibility with appropriate engagement with the outside world. The co-ops must always maintain consideration for externalities and prevent inequalities within and outside the community. There is a need to protect workers from arbitrary actions such as threats of gender, health and safety standards against co-ops, especially from the community. This also prepares the way for the protection of basic human rights, including the preservation of residents' rights through policy and the extension of the debate towards the common interests of the city. Moreover, environmental considerations within co-ops are essential in the process of re-communalising and managing non-commons sharing assets. For instance, minimising consumption through efficient use of resources, rebound effects and recycling through reduction of emissions and waste. Furthermore, co-ops must strive to manage the work-life balance within the community, such as by preventing excessive workplace monitoring.

ADAPTABILITY OF THE PLATFORM COOPERATIVISM TO E-HAILING SECTOR IN MALAYSIA

Through the construction of the framework in the previous section, a democratic system based on platform cooperativism and commons-like democratic

management governance for moving away from platform capitalism, where platform companies manage value assets, was considered. This conceptual mechanism is fully adaptable to the requirements of the PPDM, but its adaptation requires some adjustments. Table 3 aggregates the current demands from the PPDM to the Malaysian Government and the elements to which platform cooperativism can be adapted at this stage.

Table 3 Current demands from the PPDM to the Malaysian Government and adaptable elements to platform cooperativism

Demands of PPDM to the Malaysian Government	Potential Adaptability of the Platform Cooperativism
PPDM as an association of association leaders, operators and drivers involved in the land transport industry in Malaysia	Creation of platform (worker) co-ops as an establishment of a unified taxi industry management system
Requests for a unique e-hailing service available nationwide, managed by the Malaysian government, which will replace apps owned by private platform firms	Creation of a new e-hailing application that commons the taxi sector by means of platform co-ops and manages it within their communities (Technology)
Damage to the country's taxi industry ecosystem due to firms exploiting billions of Malaysian ringgit from the taxi industry. Creation of a system whereby money from the industry is returned to the industry. (Improving the quality of service, insurance coverage for drivers, scholarships for children of taxi drivers).	The transformation from a value-creating business model based on sharing assets>worker system by firms in a platform capitalist structure to a profit circulation structure within the co-ops (Social, Economy)
Discordance between taxis and e-hailing drivers due to double standards in the taxi industry	Building a new governance system based on a platform cooperativism operating system (Governance)

Once the modern commons have been formulated, this article proposes the adoption of platform cooperativism as a new institution to manage it. The PPDM has the potential to play the role of platform co-op as it is made up of leaders, operators and drivers from organisations involved in the Malaysian land transport industry. However, for the management of taxis as common, the co-op needs to take on elements comprising governance, economy, technology and society. In order to take these components into account, it is significant that the PPDM identifies the foundations of the community, including objectives and policies. This must be member-led to create a strong foundation within the community, rather than leaving it entirely to the government to build these systems. This process also includes the legal governance system required by the PPDM: harmonisation of the commercial categories of the taxi and e-hailing industry and consistent application of fares and regulations.

DISCUSSION AND CONCLUSION

This study proposes the adaptability of platform co-operatives to counter the corporate-dominated industrial structure and the government's reluctance towards platform capitalism, based on the demands of PPDM in Malaysia. Platform cooperativism in the sharing economy refers to a modern communication of democratically owned and governed intermediary platform enterprises that are profitable under a free competitive market based on co-operative democratic governance (Furuoka, 2022; Scholz, 2016). This concept has the potential not only to rethink intermediary platform-centred business operations but also to maximise the value of co-operatives, making them more flexible and better than products produced under market or state control (Kostakis, 2018). In building a practical platform co-op for co-operatives themselves, Morell and Espelt (2018) state the need for the implementation of some key elements: governance and economy, knowledge and technology policy, social responsibility and impact. Although further development is needed for their full implementation, the potential of practical co-operatives is justified by the examples of platforms in European countries such as Germany and Spain.

Based on previous research and the current social situation, this study has specifically developed a conceptual framework for the transition from platform capitalism to platform cooperativism. Platform capitalism is the core of the sharing business, where firms with digital technology generate indirect profits from workers through the use of intermediary platforms. This merely follows the traditional capitalist exploitation structure. On the other hand, platform capitalism makes it possible to create alternative business ecosystems that circulate profits by democratically managing sharing assets. This means the communal resourcing of online platforms by platform co-ops and workers' co-ops (the modern commons), which has developed from the traditional commons represented by the community management

of mere natural resources. As described earlier, the transition to platform cooperativism requires platform development and organisation based on the proper implementation of several components: governance, economy, technology and society. The conceptual mechanism was shown to be alternatively adaptable to the PPDM's demands on the government. It would be realistically possible for e-hailing associations such as the PPDM to take the lead in the creation of platform (worker) co-ops. However, the realisation of a modern version of the commons in the e-hailing sector faces a major obstacle in the implementation of a robust platform with the aforementioned elements. This may be made difficult by the fact that there are few examples of successful implementation of platforms with democratic governance that deviates from existing platforms and governments, not only in Malaysia but also in the rest of Asia. As a premise, there is an overwhelming lack of literature studying the vulnerability and the means for their empowerment in the Asian context (Uchiyama et al., 2022).

Therefore, e-hailing associations such as the PPDM need to be member-driven and create a strong foundation within the community, rather than throwing the system building to the government. Using the example of Malaysia, this study provided a benchmark study to explore the potential of platform co-operatives to deviate from platform capitalism-dominated sharing economy market structures and government policies. Future research can use the conceptual framework constructed and enhance the legitimacy and potential of platform co-operatives through a more empirical approach, including interviews with e-hailing associations and comparative studies with platform co-ops abroad.

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