

ADDRESSING THE NEW NORMAL AND THE FUTURE OF TRANSPORT

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ABSTRACT

The transportation industry is one of the industries that play a significant role in the livelihood of human beings as it connects all corners of the world. The importance of transportation in society and the economy is reflected in companies, hospitals and schools needing to access raw materials, medications and learning materials through transportation systems. It is only through transportation that people can physically move from one place to another. Therefore, the transportation industry plays a significant role in the socio-economic development of most countries.

Like anything else, the transportation industry also faces different challenges (Wolfson, 2021), such as new digital requirements, the demand from the industry for digital transformation, the urge to integrate the supply chain, the need to transform core systems of the industry, the rising in the automation of equipment, the need to improve and work on the cyber security and the desire to always meet the transportation industry user requirements, and lastly, the latest effects of Covid-19 on mobility as a whole.

Lately, the world lives in a time of unprecedented change in the transportation system (Golubchikov & Thornbush, 2022). Thus, it is challenging to state which future transportation trends will capture mass preference and which ones will fade away. However, the world needs to make a quick shift in keeping up with the changing needs of the world population and plan accordingly. This essay reflects the viable solutions that can be implemented to guide policymakers in grasping the current opportunities.

1. NON-MOTORISED TRANSPORTATION (NMT)

With the high increase in fuel prices, Non-Motorised Transportation (NMT) can be used as an alternative. NMT includes cycling and walking, as well as variants like small-wheeled transport, for example, skateboards, push scooters, cycle rickshaws, skates, hand carts and wheelchair travel (Lejda *et al.*, 2017) Additionally, NMT provides both recreation and transportation to individuals and it can be used to cover short trips up to 7 km (Lejda *et al.*, 2017). The following are ways in which NMT can be improved to help improve the future of transport.

Investing in the development of sidewalks, crosswalks, paths, bicycle lanes and networks by creating more space and investing in activities such as improving streetscapes, increasing road width and path connectivity with special non-motorised shortcuts and developing a pedestrian-friendly environment that will encourage more people to show interest in NMT.

Moreover, people will be motivated to use NMT whenever their safety is prioritised and not threatened. Safety measures that can be implemented include cycle lanes and pedestrian paths alongside the road, and secure bicycle parking either by padlocks or by making provision of security guards. Additionally, Policies and laws can be implemented to help keep order and avoid unnecessary accidents. Congestion prices should be paid to discourage NMT users from forming large groups in areas where accidents are likely to occur, and parking tickets should be issued to road users that violate parking policies. The payments from NMT can be used as financial support for the operation and maintenance of public transportation infrastructures.

Equally important, the rental of NMT might be a good job opportunity, as companies can develop automated cycle rental systems, whereby people can rent small-wheeled transports such as skateboards, push scooters, cycle rickshaws, skates, bicycles, and hand carts, which provide efficient mobility for short urban trips. In the process, the transport companies will generate income and improve the country's economy.

2. CYBER SECURITY

According to Doverspike *et al.* (1999), the transportation system is far more than just our roads, railways, airports and the various vehicles using the system. Instead, the system helps organisations and companies to do business. Thus, people will need to feel protected when using it.

Undoubtedly, cyber security needs will drive significant changes and address societal issues as the world becomes more connected and as urbanised cities grow (Wegener, 2013). Effective cyber security programs need to be developed and implemented. Modernised internal transportation networks are not optional; they are critical to the future of sustainable transportation systems. These opportunities should be given to upcoming young transport engineers and designers to develop new and improved methods, to ensure safety in the transportation industry.

3. EDUCATE YOUNGSTERS

Young people are the future of the transportation industry. Investing in the education of young people who are interested in majoring in the transportation industry is one of many ways to build a strong foundation for the industry. This can be achieved by providing financial assistance such as scholarships and bursaries to promising young individuals who are interested in taking the transportation path to further their studies and develop new and innovative projects beneficial to the industry.

Investments can be made by providing training, up-skilling and mentor-ship to prepare young professionals. This prepares them to respond to new working arrangements and occupational shifts, that increasingly rely on digital tools and new technologies. In the long run, young upcoming designers will acquire new technical skills as part of an effective lifelong learning system, which should be prioritised, especially in adapting to the "new normal".

4. AUTOMATED VEHICLES

Having automated vehicles can be a way of increasing safety in the transportation industry. Automated vehicles are vehicles capable of understanding and interpreting traffic-control devices in the absence of a driver (Golubchikov & Thornbush, 2020). Think about it, how

good will it be to have automated taxis transporting passengers around instead of having taxi drivers fighting over customers? Mistakes caused by human errors can be eliminated and assist in keeping passengers safer. Therefore, investors are encouraged to invest in this department to assist in developing the industry.

5. SOLAR PANEL ROADS (GENERATING ELECTRICITY)

The sun supports life on earth in various ways (Lejda *et al.*, 2017). One way is the provision of solar energy, which can generate electricity. The energy from the solar can as well be used to power traffic components such as traffic lights or electrical road signs. Adopting the method above will benefit the environment as solar energy does not produce any carbon emissions (Lejda *et al.*, 2017). Other than that, solar energy is renewable energy. Thus, it will increase energy security and aid in reducing energy bills.

6. DECORATING LONG DISTANCES

Long distances are very dangerous as they can cause accidents. Long-distance travelling can be a tedious and mentally challenging affair, which in most cases causes drivers to doze off or lose focus on the road. One way that can be adopted to help refresh the drivers' minds is by creating a friendly environment, such as through the construction of recreational places and resting areas, painted with bright colours alongside long-distance roads, where drivers can pull over and rest their minds and prepare with the continuation of their journey.

7. SUSTAINABLE TRANSPORTATION

Sustainable transportation refers to means of transport that minimise noise and emissions of carbon dioxide and other substances harmful to the environment (Wegener, 2013). Sustainability can also be addressed in the direction of using electric vehicles as an alternative to combustion vehicles. Combustion vehicles lead to the emission of toxic gases, which are harmful to the environment (Lejda *et al.*, 2017). However, the use of electric vehicles can provide a practical solution. They help address several issues, which are; (1) the noise produced by internal combustion vehicles, (2) high consumption and dependence on fossil fuels, and (3) poor air quality due to toxic gases such as carbon dioxide from vehicles on roads (Lejda *et al.*, 2017).

8. ROAD TRAFFIC SOFTWARE

The world is moving towards a generation of technologically advanced and automated gadgets that assist with traffic management. Thus, such traffic-focused software or applications can be beneficial to road users and authorities. The software can be used to control traffic and help prevent cases such as vehicle congestion. After all, the software can be used in bicycle rental systems or to get a taxi towards encouraging the concept of shared mobility - Mobility as a Service (MaaS). This can be an easier way for the transportation industry to keep track of daily activities and know the number of people interested in using NMT and utilising MaaS.

9. WOMEN IN THE TRANSPORTATION INDUSTRY

“There is no greater pillar of stability than a strong, free, and educated woman.” (de Weert & Gkiotsalitis, 2021). Women (considered vulnerable transportation services users) are the drivers, conductors, ticket sellers, cabin crew, pilots, dockworkers, and seafarers providing

critical services, especially now that the global community is responding to the Covid-19 pandemic (de Weert & Gkiotsalitis, 2021). In that context, the issue of equity in transportation has to be addressed as well to improve the well-being of all users.

Furthermore, educating and empowering women aids in building a solid foundation for the transportation industry. This can be achieved by providing financial assistance to transportation projects, in which women take the lead role. In this way, women can have an opportunity to showcase their talents and come up with new and innovative ideas that can assist in enhancing the transportation industry.

Female workers in the transportation industry should have full access to safe sanitation facilities and clean drinking water (especially during these difficult times of fighting against Covid-19). Implementing inclusive procedures in workplaces that consider the specific needs of female transportation operators, such as menstruation, pregnancy, disability, and pre-existing health conditions should be reinforced, which will help them work effectively and efficiently (de Weert & Gkiotsalitis, 2021).

10. THE COVID-19 PANDEMIC

Governments have developed measures to reduce the risk of spreading the Covid-19 virus by shutting down some business sectors, implementing travel restrictions, and encouraging people to work from home. In 2020, when Covid-19 started, the transportation industry was affected greatly (de Weert & Gkiotsalitis, 2021). This can be shown by a decline in the number of people who demand public transportation (de Weert & Gkiotsalitis, 2021). Therefore, each transportation user must adhere to the rules put in place to help fight against Covid-19.

As transportation industry stakeholders, we need to stand and unite, to drive meaningful infrastructure solutions and help figure out the "new normal" for transportation, whatever that may mean.

11. CONCLUSION

The essay suggested possible solutions to the transportation sector on dealing with the "new normal" and anticipating the future of transportation. There is no doubt that the impacts and challenges created by Covid-19 are different for each transportation stakeholder. Moreover, it can be said that the Covid-19 pandemic has caught everyone off guard and left the majority of people hopeless, devastated and impoverished. It can be plausibly inferred that nations need to explore alternative inclusive and sustainable travelling methods, services and operating models, some of which this essay has explored. As we adjust to the "new normal", the transportation networks need to be more connected and convenient for all users.

12. REFERENCES

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