



Title: “Investigate Technology Impact on the Profitability and Security of Local Taxi Operations in Birmingham: A Case Study of Uber”

Topic	“Investigate Technology Impact on the Profitability and Security of Local Taxi Operations in Birmingham: A Case Study of Uber”
Introduction	<p>Last couple of decades, technologies has transformed rapidly that significantly impacted on the business operations. Technologies brought dynamic form in business that is completely innovative and flexible for the users. Different forms of digital technologies are playing tremendous roles to innovate new business ideas that is contributed in the economy, employment creation and provides mass people better experience (Aarhaug, 2015). The rapid improvement in technology and such as global positioning system, Google Map, smartphones and applications are added advanced and diversified features and become globalised. New form of technologies in work is given potential shift in the transportation sector. Car ridesharing is an innovative shift in the transpiration sector across the world. Anderson (2014) expressed that ridesharing is a one-way transportation system on short notice that is fully based on digital technologies. Uber is the pioneer in the digital technology-based ride sharing company established in 2009 in the USA. The company has now operated in 63 countries in more than 750 metropolitan cities (Uber, 2019). Uber uses digital technologies that connects remotely located customers and enable an effective matchmaking for travelling transactions.</p> <p>In the transportation sector, a taxi is a vital mode of travel especially within the urban transportation network. People are using taxies for travelling in different areas in the cities in the short time. Mobile apps based ridesharing company like Uber has onset a challenge to the traditional transportation network through ease of use of digital technologies. Ballantyne and Varey (2018) argued that traditional taxi services have different limitations that make Uber ridesharing sharing popular to the customers and diminish the travel problems. Uber has used internet-based mobile apps that connect car drivers and customers to make a travel arrangement remotely.</p> <p>The use of technology by Uber has serious impact on the local Taxi operations in Birmingham. Local taxi services have faced different challenges to acquire large number of customers that directly affect the profitability of the taxi service companies in Birmingham (Elbanna, 2016). Ridesharing technology of Uber has thrown a direct challenge to the traditional taxi operators as well as provides different opportunities that are required to be investigated. Therefore, the rationale of the research is investigated the impact of technology used by Uber and its impact on the security and profitability of local taxi operators in Birmingham.</p>
Literature Review	Technology is brought blessing in the transportation system all over the world. GPS, Google Map, mobile apps etc. are given dynamic

facilities to the taxi drivers and operators companies. Digital technology is the foundation of every disruptive technology. Disruptive technology is the basis of Uber ridesharing technology method. According to Vallio (2019), disruptive technology is the new form of digital technology that ensures advanced performance and lower cost transportation performance. In the taxi industry, this disruptive technology makes a tremendous growth in the transportation system. Digital technology provides better and cheaper services to the customers along with more flexible and user-friendly technological innovations.

Ride sharing and taxi service has difference in the emphases. Taxi service is a traditional and still a major mode of public transportation system which is regulated through the provision of transportation access (Erout, 2018). In the taxi operations, taxis are remained in the taxi stand or moving in the street for carrying passengers. Digital technology has shifted a new concept in the transportation with the ridesharing model that is fully technology based. In the ridesharing model, for instance, Uber has their apps that can be installed in the smartphone and registered by the passengers and car drivers. This apps is also included the GPS and Google Map in the ridesharing. This app connects drivers and passengers so that they can make a travel deal. Hapsari and Dean (2017) claimed that digital technology-based ridesharing has opened new employment opportunities for the drivers. For example, people who have a car can register with Uber apps as driver and offer ridesharing to the passengers. The key benefit of this Uber technology is that passenger can hire a travel trip from the home without visit to the taxi stand and passenger can get multiple drivers for negotiations. As a result, passengers are preferred to use Uber technology for ridesharing for the ease of the transportation.

The drastic uprising of information technology has made numerous amenities and challenges in the transport market. Technology has clearly changed the taxi industry globally Using smartphone application; passengers can call for taxi service. Just a decade back passengers were waited for a ride and they have little scope of choice (Rose, 2019). Different form of digital technologies is playing tremendous roles innovate business model that is contributed in the business development and provide better transport experience to the passengers. Digital technology has given a rapid growth to Uber and helps the company to retain a good market in the local transportation through disruptive digital technology. This technology is innovative in the ridesharing and brings success globally. Patrick (2017) expressed that there are some unique advantages can be gotten from the technology used in the transport service such as passengers can easily hire a car for ride, the cost of the destinations can be known,

	<p>the safety of passengers is secured and passenger can get a ride on-demand through the mobile apps.</p> <p>Uber was started operation in United Kingdom in 2012 and by 2015 the company has added the major metropolitan cities of UK including Birmingham (Salanova, 2018) The local taxi operators of Birmingham are directly affected by the digital technology used by Uber. Local taxi operators are using specific coloured taxi cab that is registered by the municipal corporations. Thus, passengers can easily hire a taxi for a ride. But, after Uber has started operations in Birmingham, the local taxi operators have faced potential challenges. Uber provides opportunities to the drivers using their car for registration and passengers to select ride using Uber mobile app (Zinkhan, 2016). As a result, the local taxi operators have lost number of rides every day because some passengers are switched to Uber. Thus, profitability of local taxi operators has been declined. However, the technology that has adopted by Uber is also given potential benefits to the local taxi operators in Birmingham. Local taxi operators can also register their car on Uber so that they can also get benefitted to capture passengers from the remote locations (Eraut, 2018). When Uber came in Birmingham with the new technology, primarily the impact was huge on the local taxi operators in Birmingham. But digital technology is also opened more opportunities to increase profit and security. Both passengers and drivers are registered by the mobile apps so that passengers cannot harm drivers and drivers cannot harm passengers. So, a balance and secure transport model has innovated by digital technology in the taxi industry.</p>
<p>Research Aim and Objectives</p>	<p>This research aim is investigated the impact of technology of Uber in the local taxi operators in Birmingham on profitability and security.</p> <p>Research objectives explain the additional purposes of the research work. The major objectives are:</p> <ul style="list-style-type: none"> ● To understand the disruptive digital technology in the transport industry. ● To understand the importance of technology in taxi industry of Birmingham. ● To get idea the use of technology by Uber in their business operations. ● To analyse technology impact on Birmingham taxi operator's security and profitability.

<p>Research Questions</p>	<ul style="list-style-type: none"> ● Is technology in transport industry given ease of use taxi ride for taxi operators and passengers? ● Is technology used by Uber brought dramatic change in the taxi operations in Birmingham? ● Are local taxi operators in Birmingham affected by technology used by Uber?
<p>Methodology</p>	<p>Research Philosophy</p> <p>Ontology philosophy is the study of being or science that discusses the reality and its nature. Ontology is a process of the reflections and interpretation of a person that interpret the fact. Ontology philosophy is incorporated with the social actors to achieve subjective or objective purposes.</p> <p>Positivism and interpretivism are two aspects of ontology. Interpretivism constructs the social phenomena which are made from consequent actions and perceptions of the social entities (Patrick, 2017). Subjective interpretation is the basis of the interpretivism that intervene reality based on theories and ideas.</p> <p>Positivism is intended to objective purposes that describes the social actor's reality in the external social entities. Positivism position in the social context has a presence of fulfilling objective intention of social actors (Rose, 2019). Therefore, positivism philosophy will allow in this research to discover answers of identified question of the research.</p> <p>Qualitative/quantitative approach</p> <p>Qualitative approach is the non-numerical approach that is focused on the discovering human behaviour through negotiated and dynamic reality. Interviews and observation are the major basis of data sources and interpretation basis is descriptive in nature.</p> <p>Quantitative approach is based on numerical data that is focused on the exploring facts in the social phenomena through measurable and fixed reality. Aarhaug (2015) argued that data is collected from primary sources, analysed and presented in statistical method so that interpret the findings is supported by facts. So, quantitative approach is the right selection for this research to meet objective intentions of the research and ensure reliability in findings.</p> <p>Primary/secondary research</p> <p>Primary research indicates using the previously unused data. Primary data is collected from the target groups that are involved with the</p>

research areas (Elbanna, 2016). Primary data is mainly used in the new research and discover specific answer from particular questions. Thus, primary research is inevitable for investigating the research questions of this study.

Secondary research indicates using the published data in different mode such as internet, newspaper, books, journals, magazines, corporate report and others. Secondary research is also used in the study for producing theoretical framework to understand the concepts of the technology in taxi industry and others issues.

Data collection methods

The data sources are mandatory aspects in the research work because the reliability of findings is relying on data sources. Secondary data sources cannot meet the particular investigation due to lack of research work and time frame. Therefore, secondary data is better for the development of theoretical understanding of the study topic.

For developing statistical facts of this research, primary data is mandatory. Population and sampling are two major ways of primary data collection. Population includes the all groups that are affected by the research work such as all taxi operators, Uber drivers and passengers in Birmingham. It is unrealistic to use population as primary data collection. Thus, random sampling method is the right choice of data collection because it collects sample randomly from different groups in the population (Zinkhan, 2016). The sample size will be 50 for this study.

Questionnaire base survey will apply for collecting information from the determined samples. The questions are close-ended so that researcher can eliminate unnecessary answer from the survey respondents. As a result, more accurate findings can be achieved.

Data analysis

Different analysis tools are available in which MS Excel and MS Word are popular statistical tool. To develop statistical facts of the primary data, MS Excel will use because it shows result in numerical form. MS Word will use for interpretation and finalise the research paper.

Ethical consideration

It is essential to follow all ethical consideration while performing a research project. This research will follow the ethical guidelines prescribed by the University of West London. In addition, the survey

	participants' information will be protected as the guidelines of data protection act. Third party transfer of data will prevent very strictly.
Conclusion	This research will focus to explore the real impact of technology of Uber in the taxi industry. The technology impacts on the local taxi operators in Birmingham and the influence in their security and profitability in business. The researcher hopes that some new issues will be explored in the research project that was not studied previously by other researchers. This research will add unique value and enrich the field of study of technology base taxi industry. The study will able be presented some recommendations for the local taxi operators in Birmingham to apply Uber technology in the business to make the business profitable and sustainable.
References	<p><u>Aarhaug</u>, J. (2015). Competitive tendering in an entry regulated market - an accident waiting to happen? <i>European Transport Research Review</i>, 7(17), pp. 125-138</p> <p>Anderson, D. N. (2014). "Not just a taxi"? For-profit ridesharing, driver strategies, and VMT. <i>Transportation</i>, 41(5), pp. 1099-1117</p> <p><u>Ballantyne</u>, D., & <u>Varey</u>, R. (2018). The service-dominant logic and the future of marketing. <i>Journal of the Academy of Marketing Science</i>, 36(1), pp. 11-14.</p> <p>Elbanna, A. (2016). "Disrupt the Disruptor: Rethinking 'Disruption' in Digital Innovation," in <i>Proceeding of the 10th Mediterranean Conference on Information Systems</i>. <u>Paphos</u>, Cyprus, pp. 58-71.</p> <p>Eraut, M. (2018). <i>Developing Professional Knowledge and Competence</i>. London: Routledge Falmer.</p> <p>Hapsari, R. and Dean, D. (2017). The impact of service quality, customer engagement. <i>International Journal of Quality and Service Sciences</i>, 9(1), pp. 21-40,</p> <p>Patrick, H. (2017) 'Knowledge Workers Demography and Workplace Diversity', <i>Journal of Marketing & Management</i>, 2 (2), pp.38-73.</p> <p>Rose, J. M. (2019). Demand for taxi services: new elasticity evidence. <i>Transportation</i>, 41(4), pp. 717-743</p> <p>Salanova, J. M., (2018). Aggregated modelling of urban taxi services. <i>Social and behavioral Sciences</i>, 160, pp. 352-361</p> <p>Vallio, I. (2019) <i>Disruptive technologies: The new reality will be augmented</i>. London: Routledge</p>

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Appendix	Project plan											
	week	1	2	3	4	5	6	7	8	9	10	
	Research aim and objectives											
	Research question											
	Literature review											
	Research methodology											
	Data collection											
	Data analysis											
	Findings											
	Conclusion & recommendations											
	Final report											