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Enhancing Vehicle Utilization via a Mobile Application within the Courier Industry in New Zealand

A thesis presented in partial fulfillment of the requirement for the degree of
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ABSTRACT

In the New Zealand transport sector, the Owner-Operator is an indispensable part of Logistics industry. Most couriers and road freight companies Owner-Operators as independent contractors for delivery service. Hence, the vehicle utilization of Owner-Operators might directly influence the profitability and service quality of couriers companies as well as their personal incomes. With respect to the inefficient vehicle utilization, it normally represents as underutilized capacities of part-load shipments, empty movements or idle time.

In conducting the qualitative research, the researcher has interviewed thirty respondents who consist of Owner-Operators and Operations team staff. According to the relevant qualitative data, the research found that the inefficient activities, such as empty run, unpaired shipments and part load shipments are principally caused by unsteady delivery frequency, lack of business acquisition opportunities and small time window. These causes provide mobile technology with a significant potential to enhance the vehicle efficiency. A Logistical Mobile Application, which is installed in a smart phone or portable electronic devices, offers a cost-effective and real-time information exchange platform between customers and service providers.

From the perspectives of respondents, Owner-Operators believe that the mobile app is a new trend of integrating the functions of scanner, GPS and pager. Furthermore, around ninety percent of them perceive that it is a useful tool for improving the vehicle utilization and incomes. However, although the respondents have relatively positive attitudes on this new technology and business model, there are some constraints of its practical effect, due to the boundary and policy of the companies, as well as the population density of New Zealand.

KEYWORDS: Mobile Commerce, Mobile App, Owner-Operators, Vehicle Utilization, Logistics Management

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