Table 10. Basic statistics of CV of dwell and running time under each case

Cases	Running Time			Dwell Time		
	Range	Mean	S.D.	Range	Mean	S.D.
NRP	0.128 ~ 0.267	0.183	0.05	0.139 ~ 0.233	0.195	0.029
NP	0.129 ~ 0.212	0.177	0.034	0.146 ~ 0.268	0.207	0.041
NRNP	0.128 ~ 0.201	0.160	0.024	0.161 ~ 0.228	0.196	0.025
RNP	0.110 ~ 0.191	0.153	0.024	0.146 ~ 0.250	0.199	0.035

6. CONCLUSION AND FUTURE RESEARCH

If the CV of dwell time is large, it means that dwell time is unstable and changes a lot. It is same for the running time. From considered 32 cases, CV of dwell time was larger than that of running time in 28 cases. The guess inferred from this result is that most of the variability of bus travel time may come from the dwelling process at stops and decision makers should pay attention at stabilizing dwell time if they want lower variability of bus travel time. Particularly, running time is variable on No-Rain days and dwell time on Rain days. It is helpful for securing the reliability to establish the changeable operation plan focusing the elements of bus travel time according to weather condition.

There is a limitation that this research considered the dwell time and running time as simple values. In reality, they are not the simple values but the variables that must be explained by the complex model. For instance, the number of the signalized intersection and crosswalks, the width of bus door or the bus berth capacity may affects the running time and dwell time. In the future research, these elements can be considered as mathematical model that contains various factors as written above so that the quantitative analysis can be done. Then, it may results in optimum improvements of the reliability of bus travel time.

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