## **ABSTRACT**

## **Key Words**: Spectrum Management, Spectrum Trading, Spectrum Sharing, Telecom Management Act

One of the major differences between the precedent Telecommunication Law and the current Telecommunication Management Act is the separation of telecom business and spectrum allocation. Within the current amendment, Telecommunication Management Act takes the separate procedures concerning the registration as communication service provider and the application for using frequency, compared to the precedent regulation, these two items shall be combined and reviewed by the regulator before allocating frequency. After referring to many international spectrum management frameworks, the new Act adopts a diversity of mechanisms to release frequency, such as beauty contest, open bid and auction. The regulator is allowed to firstly review the policy aim and public interest before deciding which mechanism would be adopted for spectrum allocation. Additionally, in order to offer more flexibility for operators and service providers concerning further cooperation and increase the efficiency for spectrum, the regulator adopts spectrum reallocation, spectrum leasing and spectrum sharing into the new regulation.

The significant influence has been casted to current spectrum management by Telecommunication Management Act, since the framework has been altered greatly from the precedent regulation. The regulator is keen to search for solutions in correspondence to the new changes, for instance, the proportion and rationality of frequency allocation, the competition in telecom market, and the transition from precedent regulation to current one. Furthermore, based on the rapid progress of 5G, the regulator shall continuously promote the development of innovative service and technology. This research on the basis of two items, international regulation case study and integration with regard to Telecommunication Law and the current Telecommunication Management Act. The research team will conduct analysis under the framework of Telecommunication Management Act and offer policy advice to the regulator, regarding supplementary regulation and future telecommunication regulation.

Based on the research result of previous chapters, the research team will illustrate our conclusion and recommendation respectively, according to the complexity and the time schedule they may require. There are two genres of policy advice, recommendations to short-mid term and long term. With regard to the recommendations to short-mid term, they are Consider Spectrum Amount with Actual Use and The Total Spectrum Cap, Meet the Request from Innovative Technologies and Service, and Design an Original Spectrum License. On the other hand, recommendations on long term include Amendment of Article 58 and 59 in Telecommunication Management Act, Creating Mechanism of Sandbox in Telecommunication Management Act, Discussion concerning competition in spectrum leasing and spectrum sharing.