The Research on the Development of Crime Research **Institutions Across Countries: A Comparative Study**

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Abstract

This research aims to extensively collect and analyze the experiences of establishing crime research institutions from other countries by reviewing literature as well as to learn some opinions from experts and academic scholars with related backgrounds. The major purpose is to design and build up a national crime research institution and confirm the long-term development blueprint of crime research in Taiwan. In this research, six countries with national crime research institutions, including the USA, Germany, Australia, Japan, South Korea and China, are chosen to compare their missions, management and characteristics. Also, two institutions in Taiwan, including National Academy of Educational Research and National Health Research Institute, are chosen to analyze in this research to be a reference of building up a national crime research institution. This research also used a qualitative research method to interview some experts and scholars personally and invite eight experts and scholars to engage in a focus group discussion. The purpose of the qualitative research is to establish the blueprint of a national crime research institution. In the end, we summarize four assessments and hope those can be guidelines for developing crime research system in Taiwan.

Keywords: Crime Research Institute, Cross-National Research Method, Barrel Hoop theory

1. Background and Aim of Research

This research project was commissioned by the Academy for the Judiciary, Ministry of Justice, in December 2015. The aim of research is to comprehensively collect and analyze data concerning the experience in establishing relevant research institutions at home and abroad and the professional recommendations of experts and scholars familiar with this research topic in order to draw up the research conclusions and recommendations for the reference of Taiwan's planning and establishment of a "national crime prevention research institution".

2. Scope of Research

- (1) To collect and analyze the data concerning the basic model of establishment and development of crime prevention research institutions with bigger differences in the following six countries: the USA, Germany, Australia, Japan, South Korea, and mainland China.
- (2) To compare the basic operating model, advantages, and disadvantages of the crime prevention research institutions in these countries.
- (3) To collect and analyze the data concerning the current status and trend of crime in these countries.
- (4) To collect and analyze the data concerning the basic model of establishment and development of the following two research institutions in Taiwan: National Academy for Education Research and National Health Research Institutes.
- (5) To compare the basic operating model, advantages, and disadvantages of these two research institutions.
- (6) To collect and evaluate the data concerning the feasibility, necessity, and complexity of upgrade and establishment of a "national crime prevention research institution" in the future proposed by experts and scholars familiar with topics relating to this research; and to investigate the strategies for implementation and the practice of various processes.
- (7) To draw up conclusions and make recommendations by concluding the above literature review and expert opinions.

3. Methodology

3.1. Constructing the research framework based on "transnational comparative research"

Comparative research is characterized by its investigation of aspects in social life, and instead of a single unit, comparative research can surmount unit generalization, e.g. culture (Neuman, 2002. (Wang & Pan, Trans.)). According to Ragin (1994), researchers explain the similarities and dissimilarities of different cases in a comparative research in an attempt to find out their differences. Based on the research objective, this research first collected and analyzed the data concerning the establishment and current status of development of crime prevention research institutions across the globe as the basic framework for the subsequent research.

3.2. Forming the core research topic by collecting "secondary data" and summarizing research conclusions

By collecting the "secondary data" of the following aspects, this research established the core research topic to investigate problems that Taiwan is facing and the future development needs in crime prevention research.

- (1) The trend of crime and the current status of research and development of crime prevention in Taiwan
 - To investigate the overall status and important trend of crime in Taiwan; the current status and needs of crime prevention research in Taiwan; and the current limitations and difficulties in crime research development in Taiwan.
- (2) The establishment and current status of development of crime prevention research institutions in foreign countries
 - To collect the data concerning the establishment and current status of development of crime prevention research institutions in foreign countries. With regard to the familiarity with crime prevention research institutions across the globe of members in the research team, and based on the feasibility of data collection and analysis and the need for international cooperation and exchange, this research selected crime prevention research institutions in the following six countries: the USA, Germany, Australia, Japan, South Korea, and mainland China. Then, this research compared the crime prevention research institutions in these countries in terms of their characteristics and basic requirements: background and history of establishment, organization and staffing, functions and duties, and research activities and achievements for the reference of Taiwan's promotion and implementation of crime prevention research.
- (3) The establishment and current status of a national crime prevention institution in Taiwan To investigate the history of establishment, scale, functions and duties, and budget of national research institutions in Taiwan, including the National Academy for Education Research and National Health Research Institutes, for the reference of establishing a national crime prevention institution.

3.3. Forming expert opinions and proposing research recommendations by collecting "primary data"

This research processed primary data with the qualitative approach. To fully present all aspects of the research topic, this research applied the method of thick description and interpretation (Denzin, 1999; (Chang, Trans.)) in the data collection process, including interview guideline establishment, in-depth investigation of items in the interview, to fully present the research topic in detail. The method of thick description and interpretation refers to a process integrating interaction, context, and history. It aims to understand the agent's subjective meaning and thereby understand the objective implications in the social life of this subjective meaning (Tsou, 2003). Mills (2003) believed that in the sociological imagination, researchers should associate personal feelings and sufferings with the social structure and system. First, we should avoid assuming other groups based on the value, standing, and worldview of our own group. Instead, we should enter other groups, regardless of social class, gender, race, and culture, to understand, participate in, and recognize other's lifeworld (Lebenswelt). The path of qualitative research of this research includes qualitative in-depth expert interview, and expert FSG.

(1) Qualitative in-depth interview with experts

This research conducted a "semi-structured in-depth interview" with senior experts and scholars in Taiwan who are familiar with topics relating to this research. Based on the interview transcripts, this research concluded the recommendations made for the core research topic by each participant to form explicit and clear suggestions to extend the depth and breadth of this research.

(2) Focus group discussion with experts

After holding a focus group discussion (FGD) with experts, scholars, and higher-level administrative officers, such as officers involved with criminology, criminal policy, public policy, the judiciary, and the police, with rich experience in promoting similar research institutions in Taiwan, this research collated the opinions of attendees and the minutes of FGDs as the secondary data for analysis to form research recommendations in order to increase the feasibility of policy implementation in the future. A FGD moderator nurtures interaction and discussions among attendees to gather the information from their speeches (Niu, 2012). Krueger and Casey (2009) suggest that a FGD should include at five to ten attendees. This research invited eight scholars to the FGD.

4. Data Collection and Analysis

In the collection and analysis of research data, based on research method planning, this research collected and analyzed secondary data to form the research foundation for the reference of subsequent primary data collection. Secondary data were mainly collected from crime prevention research institutions in foreign countries and national research intuitions in Taiwan. While primary data were collected from one "in-depth interview" and one "FGD" with experts and scholars in Taiwan who are familiar with the research topic for the core topic and data investigated in this research in order to draw up the research conclusions and recommendations.

4.1. Collection and Analysis of Secondary Data

4.1.1 Establishment and comparison of crime prevention research institutions in foreign countries

Based on the research aim, this research collected data concerning the establishment, development, advantages, and disadvantages of crime prevention institutions in the following countries: the USA, Germany, Australia, Japan, South Korea, and mainland China for the following reasons:

- (1) Based on the familiarity with crime prevention research institutions across the world and the frequent interaction with the Australian Institute of Criminology (AIC) over the years, the research team determined that its energy and effectiveness is worthy of reference.
- (2) For the need of transnational cooperation and academic exchange on fighting crime, in Asia-Pacific region, in addition to Japan, Taiwan's connection with mainland China is inseparable in criminal issues due to the cultural similarity and increasing interaction between both regions. While the technological and economic growth of South Korea in recent years is similar to that of Taiwan, its measures for preventing high-tech and economic crimes are worthy of reference.

4.1.1.1 Establishment of crime prevention research institutions in foreign countries

To overview the basics, such as main missions, organization, functions and duties, areas of research, and staffing, of crime prevention research institutions in foreign countries, including the USA, Germany, Australia, Japan, South Korea, and mainland China.

4.1.1.2 Comparison and analysis of crime prevention research institutions in foreign countries

To systematically review the establishment and development of crime prevention research institutions in foreign countries for the reference of Taiwan's establishment of a national crime prevention research institution in the future. After concluding the "purpose of establishment", "advantages and characteristics," and "operational model" of crime prevention research institutions in these six countries, this research compared and contrasted each item.

4.1.1.2.1 Comparison of the purpose of establishment

After concluding the purpose of establishment of crime prevention research institutions in these six countries, this research compared and analyzed the difference in backgrounds and development characteristics of these institutions, including the "time of establishment", "main missions", "organization", "functions and duties", "areas of research", and "staffing".

(1) Time of establishment

Amongst these six counties, Germany was the first to establish such institution, in 1948, i.e. 68 years earlier; Japan was the second earliest, in 1958, i.e. 58 years ago; the USA was the third earliest, in 1978, i.e. 38 years earlier; mainland China was the fourth earliest, in 1984, i.e. 32 years earlier; South Korea was the fifth earliest, in 1989, i.e. 27 years earlier; and Australia was the last, in 2011, i.e. five years earlier. Hence, the development of crime prevention research institutions in both Germany and Japan has over a half century of history. After long-term development, the basic condition of crime prevention research institution in Germany is mature in terms of mission, organization, function and mission, research, and staffing (127 employees including 44 doctorates). Crime prevention research institutions in the USA, mainland China, and South Korea have a history of nearly 30 years. AIC is the youngest, with only 20 personnel.

(2) Main missions

The main missions of crime prevention research institutions are similar in all of those countries. The missions include the development, improvement, expansion, instruction, or reformation of the theory and practice of "criminal policy", "crime prevention," and "criminal justice administration." These missions may vary due to the difference in national conditions of different countries. South Korea emphasizes "international academic exchange and cooperation" and "provision of crime information service for citizens." The USA focuses on "the application of science and technology knowledge" and "support in crime prevention for the federal and state governments." Japan adds "judicial personnel training" and "exchange with government and private crime prevention institutions in Asian developing countries." Germany stresses on "integration of interdisciplinary research methods" and "total social control."

(3) Organization

Crime prevention research institutions in these countries mostly combine "administration" and "research" units. The administrative organization is highly homogeneous, including "director (deputy director) office", "administration", "personnel affairs," "accounting," "information", "public relations," and "planning" to support the research of the academic unit. The difference in research units is quite large

due to the national and public security conditions of individual countries. For example, Korean Institute of Criminology (KIC), the crime prevention research institution of South Korea, has established research units for crime victimization (prevention and investigation) and criminal justice with focus on the collection of public security intelligence, economic crime, and expansion of international academic exchange. AIC has set up research units for "transnational and organized crime" and "violent and serious crime." The National Institute of Justice (NIJ), the crime prevention research institution of the USA, has established research units including "forensics," "technology research", and "research funding management" and emphasizes the application of science and technology, provision of research funding, and the fairness of fund distribution. The Research and Training Institute (RTI) of the Ministry of Justice, the crime prevention research institution of Japan, has established the "International Collaborative Research Department" and "International Cooperation Department" to participate in the UN peripheral organizations on crime prevention and promote academic exchange on crime prevention in Asia Pacific. The Crime Prevention Research Institute (CPRI) of the Ministry of Justice, the crime prevention research institution of mainland China, has set up the "Re-Education Through Labor Institute," "Prison Work Institute", and "Judiciary & Human Rights Institute" for its special national conditions. As the most mature crime prevention research institution in the world, Max Planck Institute (MPI) for Foreign and International Criminal Law of Germany has three task forces after natural split: "administration", "research", and "talent cultivation"; and three task units: "administration agency", "research institute", and "criminology department" to take charge of administration, general affairs, academic research, and research talent cultivation.

(4) Functions and duties

After comparing the nature of work of crime prevention institutions in these countries, this research found that "crime and criminal justice (policy) research" and "seminar/conference (all kinds) organization," and "research outcome publication" are the most common missions of these institutions. The difference among them is that the expansion of international academic exchange and cooperation are emphasized by institutions in South Korea, Japan, mainland China, and Germany, while the "provision of different kinds of training on criminal justice and crime prevention" is emphasized by the USA. Germany even added "running educational organizations" and "cultivating crime research talents" to the work of crime prevention research institutions.

(5) Areas of research

Most crime prevention research institutions focus on the research of criminal justice, criminal activities, and crime corrections, including "criminal policy", "criminology", "causes, investigation, and prevention (control) of crime", "crime victimization", "crime prosecution", "judicial procedure", "corrections and treatments", and "rehabilitation protection". The difference in individual countries includes: South Korean emphasizes on the research of crime intelligence collection. Australia pays attention to guns, drugs, frauds, violent and serious crime, and emphasizes on public policy and problem analysis. The USA stresses on the research of the "effectiveness, legitimacy, accountability, and security of law enforcement" to enhance the legitimacy and security of law enforcement of law-enforcement officers. Germany extends research to the crime status, criminal justice system, and law enforcement ability of different countries and long-term monitoring of different kinds of transnational crime and organized crime, the broadest amongst six countries.

(6) Staffing

Except for Japan where no staffing data is available, the staffing of the crime prevention research institution in most countries has a "medium to large scale," and the scale positively correlates to the history of institution. As the world's oldest crime prevention research institution, MPI established in 1948 has an establishment of 171 employees (including 44 doctorates), the most amongst all six institutions. RTI established in 1958 is the second oldest. NIJ has the second largest establishment with 104 personnel. As the youngest, AIC established in 2011 has only 20 personnel.

4.1.1.2.2 Comparison of the advantages of institutions

In this section, this research uncovered the advantages of crime prevention research institutions in these countries for the promotion reference of Taiwan's crime prevention research institution to a national institution. After concluding relevant data, this research found the following six advantages: "publishing journals and reports", "constructing a research database", "promoting domestic academic exchange", "expanding international academic exchange", "establishing a project research and evaluation unit", and "special advantages".

(1) Publishing journals and reports

Publishing journals and reports at regular intervals has become a basic mission for research institutions to present research achievements, and the "annual work report" which presents the institution's status and achievements of work in a year is the most common type of publication (except for mainland China). In addition, fundamental survey reports such as the "crime victimization (case) investigation report" or "national crime white paper" and "crime case studies and statistics" are also common. However, RTI's *National Crime White Paper* adopts a popular, simple, and lively style with a lot of color charts and tables and accompanied with a CD-ROM to enhance public reading intention. KIC regularly publishes *Newsletter Quarterly* to provide information concerning recent serious (important) crime in simple language to raise public awareness of crime prevention. To present outsourced research results, NIJ publishes a total of 49 "sponsored research papers" every year. MPI also publishes comprehensive research reports, including 11 types in three main categories: "reports on research in criminal laws and in criminology", "introduction and collection of research achievements," and "annual research white paper."

(2) Constructing a research database

AIC, NIC, and MPI have establish their own "research database." In addition to the national crime research database—JV Barry Library, AIC has established a dedicated database CINCH for criminology research for public retrieval both in print and over the internet. To actively build a national crime research database, NIJ electronically files all published academic papers to form an archive database. To support academic research, the country sections and international criminal law research school of MPI have established a library as a national research database.

(3) Promoting domestic academic exchange

Domestic academic exchange is emphasized in South Korea, Australia, the USA, and mainland China. In South Korea, professional competencies supporting related domestic crime prevention institutions as organizational missions. The USA spends most efforts in this area. To promote the conversion of criminology knowledge, NIJ has created a knowledge conversion practice and operation model. Apart from linking academic

research with practice, NIJ proposes practical reforms for criminal justice and policies and methods for enhancing crime fighting effectiveness, guides the cyclic model of converting academic knowledge into practical applications. NIJ also actively participates in important academic activities and organizes symposia, on-line forums, and expert workshops. NIJ also hosts the national criminal justice conference, inviting over 1,000 criminal justice experts and scholars to the conference.

(4) Expanding international academic exchange

As there are dedicated units to promote international academic exchange in both South Korea and Japan, suggesting that both countries have a strong sense of purpose to expand international space and promote international exchange and exchange. In particular, RTI has established two the quasi-independent units: "International Collaborative Research Department" and "International Cooperation Department." The former is established to promote international academic exchange and cooperation under the Asian crime prevention agreement signed between Japan and UNDOC. Apart from assisting the Ministry of Justice on promoting international crime prevention practice and academic exchange, the latter aims to promote academic exchange and cooperation with related research institutions in Asia and to conjointly promote preparative and supportive activities, such as the drafting and amendment of a basic law on crime prevention and establishment of a judicial system, and cultivate talents for legal practice and research.

(5) Establishing a project research and evaluation unit

To supervise the implementation of various research projects and assess and manage the allocation of funds of research institutions, a research and evaluation unit will be established in the form of a committee to supervise the implementation of research projects and work. For example, KIC has established the "Crime Consultation Committee" with members from regional courts to evaluate the implementation and achievements of each project. RTI has established the "Integrated Planning Department" to take charge of the further education of personnel and integrated planning with RTI. This department also takes charge of the coordination and evaluation of business across RTI units. Every year the department forms a "research review and assessment committee" with members selected from university professors. The committee has one chairperson and a number of committee members selected from professors with experience in criminal experience or comprehensive professional knowledge to ensure committee members are selected and appointed in compliance with the basic requirements for fairness, righteousness, objectiveness, and expertise.

(6) Special practices

The innovative systems or special practices of the research institutions in these countries are as follows. For example, NIJ pays attention to the external allocation of resources to ensure fair sharing of research resources in academic and practical researches and drive the diversity of growth. NIJ specially provides different types of funds, including project research scholarships for field word, such as "research, development, and assessment," "optimization of forensic science laboratory research and development," and "research scholarships." NIJ also provides research scholarships for academic units and students, including the "research scholarships for research students," "WEB Du Bois Scholarship," "visiting scholar scholarships," and "NIJ research funds." MPI established the Max Plank Institute for Human Development (Max-Planck-Institut für Bildungsforschung) with various law-related departments, such as the Department of Comparative Criminal

Law, Department of Retributive Justice, Mediation, and Punishment, Department of Impacts of Ageing Society, and Department of International Law Disputes and Settlement. The institute also offers full scholarship for doctoral students to cultivate talents higher level criminal justice and crime prevention.

4.1.1.2.3 Comparison of operational model

After analyzing the basic structure, organization, fund source, and operational model of research institutions in these countries in terms of style and model, this research categorized these research institutions into three types: "national", "mission-based", and "research-focus" types to provide a reference for the positioning of Taiwan's "national crime prevention research institution" established in the future.

4.1.1.2.3.1. National institution

A national research institution is a research institution entitled with the name of the country. It is often named the "institute of criminology" to denote the field of specialization of this institute. In terms of administration, it is a state-run independent research institution acting as the "country's research think tank of criminal justice" that plans and implements the country's criminal policy and crime research with government funds. KIC and AIC are the typical examples.

(1) Advantages

- 1) Independent control over personnel affairs, budgets, business, and research
- 2) Significantly reducing intervention from the administrative system.
- 3) Greater self-determination over research planning and implementation.
- 4) Direction of the directions and issues concerning crime prevention research.
- 5) Control over resources of domestic crime research.
- 6) More government funds and budgets for allocation.
- 7) More abundant research resources.
- 8) Leaner research staffing and equipment.
- 9) Effectively enhancing overall national research energy.
- 10) Acting as the think tank of the country's criminal policy and crime problem resolution.
- 11) With adequate resources for expanding international academic exchange and co-operation.

(2) Disadvantages

- 1) Unable to get rid of the intervention of the administrative system.
- 2) Limitation on the freedom of domestic academic research.
- 3) Significantly increasing government funds and expenditure
- 4) Monopoly of research resources when they are in the hands of a minority group.
- 5) Risk of a waste of resources and ineffective research in the absence of an effective oversight mechanism.

4.1.1.2.3.2. Mission-based institutions

A mission-based research institution is a research institution entitled with the name of

the competent authority (i.e. justice). In terms of administration, it is a level-one unit of the "ministry/department of justice" under the direction and supervision of the superior judicial authority to engage in the research of crime prevention and criminal justice. As a mission-based organization of its parent organization, its budget and staffing are planned by the ministry/department of justice. NIJ, RTI, and CPRI are typical examples.

(1) Advantages

- 1) Effectively implement various legal administration research missions.
- 2) Practically plan the directions and research topics.
- 3) Promoting better integration of academics and practice.
- 4) Enforcing research outcomes in law enforcement practice.
- 5) Rigorously specifying research topics and reducing unnecessary waste of research resources.
- 6) Effectively supervising the implementation of various research projects.
- 7) Effectively integrating the research resources of internal departments.
- 8) Effectively consolidating the research data of internal departments.
- 9) Closely capturing social order movements and effectively addressing public needs.
- 10) Timely and accurately responding to serious criminal events in society.

(2) Disadvantages

- 1) Unable to control external research resources.
- 2) Difficult to gather external outside data.
- 3) Difficult to coordinate and integrate research topics across government departments.
- 4) Unable to direct the directions and topics of domestic crime prevention research.
- 5) Unable to significantly expand staffing and increase research funds.
- 6) Unable to increase overall research energy.
- 7) Unable to turn research outcomes into national criminal policies and handle the crime question think tank.

4.1.1.2.3.3. Research-focus institutions

The Max Planck Institute for Foreign and International Criminal Law (Max-Planck-Institut für ausländisches und internationales Strafrecht) is a branch of the Max Planck Institute for the Study of Societies (Max-Planck-Institut für Gesellschaftsforschung) specialized in the research of criminal justice and crime prevention. It also directs the collection of data relating to the research projects on "criminology" and "criminal law" in Germany and worldwide, and the comparison and analysis of the status of crime and criminal laws and regulations in Germany and worldwide. Its scope of research covers the whole world and data collection includes global databases. Budgets and staffing are planned individually. It is a typical research-focus institution.

(1) Advantages

- 1) Greater freedom to determine the direction and topic of research.
- 2) Able to combine private academic freedom and administrative research missions.

- 3) More flexible organization based on mission needs regardless of the restrictions of government laws, regulations, and policies.
- 4) More flexible fund utilization regardless of government budgeting restrictions.
- 5) Forming national criminal policies and handling the crime issue think tank.
- 6) Increasing overall national research energy.
- 7) Receiving more professional research resources.

(2) Disadvantages

- 1) Difficult to effectively implement legal administration research missions due to the emphasis on the freedom of academic research.
- 2) Rather difficult to balance academic freedom and practice in research planning.
- 3) Unable to directly lead external research resources.
- 4) Unable to closely capture social order movements.
- 5) Unable to effectively respond to the public needs with research outcomes.

4.1.2 Establishment and comparison of national research institutions in Taiwan

To tackle the research topic of "establishment a national crime prevention research institution" and understand the status of research resource allocation of Taiwan's "Crime Prevention Research Center", this research analyzed the "style categorization", "resource allocation", and "advantages and disadvantages" of the "Crime Prevention Research Center" in parallel with the "National Academy for Education Research" and "National Health Research Institutes".

4.1.2.1. National Academy for Education Research

(1) Style categorization

It has been five years now since the National Academy for Education Research (NAER) was established on March 30, 2011. NAER was founded by combining relevant organizations under the Ministry of Education (MOE). After independently operating for years, each of these organizations has established mature professional research and resource allocation mechanisms, and they are the eminent features of NAER. As a level one MOE organization, NAER plays an active role in the national education research think tank in addition to its devotion to teaching research and educational talent cultivation. As every research project and implementation are under the instruction and supervision of the education administrative system, NAER is a "mission-based" research institution.

(2) Resource allocation

The amount of resources allocated to a research institution represents the basic research energy of this research institution and its importance in the government. In 2015, NAER had a staff of 190 personnel, budget was NT\$526,596,000, and first reserve was NT\$1,182,000, totaling NT\$527,778,000. Its research resources were quite sufficient, with a scale between a medium and a large research institution.

(3) Advantages and disadvantages

1) Advantages

a. As a level one MOE-unit, NAER can fully direct its responsibility and authority within MOE.

- b. Capable of integrating various research resources within MOE.
- c. Organized with reference to the organization of the previous structure of each branch with complete and sound establishment in organization, business, functions, staffing, and budget.
- d. Significantly enhancing overall research energy after integrating other previous research units.
- e. A level one MOE unit with more abundant research resources.
- f. Able to better display overall research effectiveness to back as the think tank of national education policies.
- g. With abundant funds from the government over NT\$520 million.

2) Disadvantages

- a. Requiring well-planned coordination and integration mechanisms in order not to reduce research energy.
- b. Distributed location of branches unfavorable for everyday interaction, integration, and communication.

4.1.2.2. National Health Research Institutes

(1) Style categorization

The National Health Research Institutes (NHRI) was established in January 1996 in accordance with the "Act for Establishing the National Health Research Institutes" to promote the improvement of "medicine", "medication", "heath", and "life science" and to research and develop medical and pharmaceutical technology. It is a research institution established for the sole purpose of medical and pharmaceutical technology research without involving any missions of the medical administration system. As it was established as a corporation, it is a typical corporation-style research institution.

(2) Resource allocation

As a corporation is allowed to gain profit externally, NHRI's 2016 revenue was NT\$30,512,270,000, expenditure was NT\$32,088,020,000. As NHRI also accepts external donations, it enjoys greater freedom and flexibility in raising funds. NHRI's 2016 staffing was 993 personnel. With abundant research resources, it is a large research institution.

(3) Advantages and disadvantages

1) Advantages

- a. Operating as a corporation can significantly reduce government financial burden.
- b. The corporation structure enables greater flexibility in budget planning and utilization and staffing.
- c. The corporation structure reduces intervention from the government's administrative system to give more freedom for academic research.
- d. Abundant in both staffing and budget to significantly enhance organizational research energy.
- e. Able to raise part of the fund from private donations or provision of training services.

f. Allowed for gaining profit externally.

2) Disadvantages

- a. Comparatively unable to implement research missions assigned by the administrative system.
- b. Comparatively unable to balance academic freedom and practice.
- c. Ineffective lead and command external administrative systems and private research resources.
- d. Unable to effectively respond to the need with research outcomes.

4.1.2.3. Crime Prevention Research Center, Academy for the Judiciary, Ministry of Justice

(1) Style categorization

The Crime Prevention Research Center (CPRC) was established on 1 July 2013 under the Academy for the Judiciary (AFJ), Ministry of Justice (MOJ). As a level two the MOJ unit, CPRC has heavy duties, including the think tank of national criminal policies, capturing the status of crime in society, planning long-term criminal policies, and ensuring national security and social peace. Therefore, CPRC is a "mission-based" research institution.

(2) Resource allocation

The center has no specific staffing, just with one chief, one executive officer, and one officer. In addition, none of them has statutory functions and duties, except for heavy research work. In terms of budget, the MOJ plans about NT\$1 million a year for the business development of CPRC and NT\$1.5 million for commission research, totaling NT\$2.5 million. Compared to the above two research institutions, the research resources of CPRC are significantly deprived.

(3) Advantages and disadvantages

1) Advantages

- a. Both the staffing and budget are extremely low to significantly reduce government financial burden.
- b. High research outputs when comparing its research resource scarcity with its actual performance.

2) Disadvantages

- a. Research resource (workforce and budget) scarcity.
- b. Unable to effectively increase overall research energy.
- c. Unqualified to be the think tank of government policies.
- d. Unable to direct and integrate crime research resources and topics within the ministry and the country.
- e. Unable to closely capture social order movements and effectively respond to the public needs.
- f. Unable to timely and accurately respond to serious crime events in society.
- g. Unable to direct and integrate domestic research resources and topics.
- h. Unable to expand international academic exchange and cooperation.

4.2. Collection and Analysis of Primary Data

To collect primary data, this researched held one "case in-depth interview" and one "FGD" with eight domestic experts and scholars familiar with the area and topic of this research. The "interview (FGD) topic simulated individually for the reference to form the core topic.

4.2.1. Collecting and analyzing data gathered from the in-depth interview with experts

4.2.1.1 Interview outline

Based on the research aim, to practically gather data concerning the experience in establishing and the promotion policy of crime prevention research institutions in foreign countries, it is necessary to draw up an interview outline to guide participants to the core of the topic and understand the complexity of background involved for participants to analyze and compare relevant topics and make appropriate recommendations. The interview was divided into five major topics and each with at least one item. This research thus designed nine items for the in-depth interview.

4.2.1.2 Participants

This research selected eight participants. With regard to the research team's familiarity with the research topic, the feasibility of data acquisition, and the suggestions of the client, participants are all domestic representative experts of crime prevention, and most of them hold a doctorate in criminology earned from respective countries and are qualified for sharing academic theories and practical experience. This research conducted the interview between April and July in 2016. Table 4-1 shows the list of participants.

Table 4-1 *List of Experts Participating in the In-depth Interview*

Code	Specialty of Participants	Attribute	Interview Date
T1	Criminology and criminal policy, police administration, transnational crime, white collar and economic crime	Scholar	22 Jun 2016
T2	Criminal justice policy, crime prevention theory and practice, private security guards	Scholar	5 Jul 2016
Т3	Criminal policy, criminology, crime prevention, criminal law, crime safety and security for women and children, juvenile affairs	Scholar	22 Jun 2016
T4	Criminology, criminal psychology, juvenile crime, prison studies, drug abuse and drug prevention	Scholar	6 Jul 2016
T5	Prison Act, Detention Act, Rehabilitative Disposition Execution Act, Statute of Progressive Execution of Penalty	Expert	28 Apr 2016
Т6	Probation system, community-based corrections, criminal policy	Expert	28 Apr 2016
Т7	Constitution, criminal code, the law of criminal evidence, judicial ethics, judicial system comparison	Expert	20 Jul 2016
Т8	Juvenile crime, sociology of law, white collar crime	Scholar	2 Jul 2016

4.2.1.3 Data analysis

Item 1

All participants of the interview (hereinafter called the "Participants") agreed to the claim of the "barrel hoop theory." However, they were inconclusive or even doubtful about the ability of CPRC to demonstrate the leader and integrator role in the future. After all, the content of the theory will not be achieved overnight and it is necessary to put "turning CPRC into a national research institution" in the first place. If CPRC is still a the MOJ unit or maintain its present status, it can only integrate the research resources within the MOJ and cannot turn the theory into reality, and the "barrel hoop theory" is merely a "vision" in the imagination.

Item 2

- (1) Explicit achievements of CPRC since its establishment (from October 2013 to August 2016)
 - 1) Established and maintained one crime prevention research database (on-line)
 - 2) Printed six books on crime prevention research.
 - 3) Completed four commissioned research projects.
 - 4) Held 11 academic symposia.
 - 5) Held five research and development consultation meetings.
 - 6) Organized two outstanding master's thesis and doctoral dissertation selections.
 - 7) Attended at 22 expert workshops or radio interviews.
 - 8) Selected concurrent research fellows and made comments on serious crime in society 16 times.
 - 9) Assisted on reviewing crime prevention research papers or teaching materials six times.
 - 10) Published nine volumes of a quarterly journal on crime prevention research.
 - 11) Completed five auxiliary teaching materials on crime prevention and rule of law education.

(2) Problems faced by CPRC

- 1) Understaffing
- 2) Lack of professional research talents.
- 3) Serious research fund shortages.
- 4) Very limited research energy.
- 5) Incompliance with the nature of AFJ.
- 6) Organizational level is too low.
- 7) Inability of achieve the ten statutory missions of CPRC.
- 8) Inability to play the barrel hoop (leader and integrator) role.

Item 3

Despite the difference in the strength of necessity, all participants agreed to the need for a "crime prevention research institution" in Taiwan. The opinions of participants are as

follows:

- (1) Although Taiwan has a lower crime rate compared to advanced countries, people's perception is another question.
- (2) People have a deepening sense of crime victimization.
- (3) Collective fear of crime victimization arises in society due to the overemphasis of special serious crime by the media.
- (4) Increasing internationalization and complication of crime.
- (5) Long-time negligence of the need for crime prevention governance of the government.
- (6) The need for a focus and direction for future crime prevention research.
- (7) The need to enrich the substantial contents of criminal justice work in order to quickly respond to changes in social order and the environment.

Item 4

Participants disagreed and expressed negative views that CPRC should be under AFJ for the following reasons:

- (1) It is against the aim of CPRC establishment.
- (2) Training and research are two different things.
- (3) The organizational level of CPRC is excessively downgraded.
- (4) Inability to integrate and apply research data.
- (5) Crime research requires "cross-ministerial" and "interdisciplinary" efforts.

Item 5

Except for one participant (T8), all other participants emphasized the need for a "national crime prevention research institution," despite the different in opinions concerning the name, organizational level, model, and scale of the institution for the following reasons:

- (1) Reasons of the pros
 - 1) The institution can act as the think tank of national policies.
 - 2) Nine crime issues are as important as other social issues.
 - 3) Lack of long-term surveillance over serious crime and crime victimization by the government.
 - 4) The scope of "cross-ministerial" and "interdisciplinary" cooperation to fight and prevent crime.
 - 5) The experience of establishment in other countries.
 - 6) The present organizational level of CPRC is too low.
- (2) Reasons of the cons
 - 1) Inability to maintain uniqueness.
 - 2) Bureaucracy and ageing of research fellows.
 - 3) Easy confusion with the statistics produced by the budget, accounting, and statistics authorities because academic research institutions are by nature similar to the budget, accounting, and statistics authorities.

Item 6

Possible solutions for not establishing a national crime prevention institution proposed by participants are as follows:

- (1) Establishing a research "task force" as in Singapore.
- (2) Increasing research funds to outsource research projects.
- (3) Hiring short-term visting fellows to join the research as by NIJ.
- (4) Establishing a crime research institution in the form of a corporation.
- (5) Establishing a crime research institute in the Sinica Academia.
- (6) Offering research funds and data to private independent research institutions to maintain research independency, personnel flexibility, and the innovation of research skills and outcomes.
- (7) Establishing more graduate schools or research centers at higher education establishments and cultivate police administration and prison administration talents in the Central Police University to enable more exchange.

Item 7

The required functions in the ideal of participants are as follows:

- (1) To collect and collate domestic crime research data to form a crime database.
- (2) To analyze overall crime trend to form a national think-tank.
- (3) To hold relevant academic symposia and direct and integrate domestic crime prevention research resources.
- (4) To support fieldwork with academic research and to obtain data from field work for academic research.
- (5) To expand and participate in international academic exchange and cooperation.
- (6) To survey and publish national crime white papers.
- (7) To promptly respond to current crime and criminal policy issues in the country.

Item 8

Except for one participant (T8) (believing that similar national crime prevention institutions should not be established because researchers appointed by the government or holding a public servant status will have no research energy and achievement) disagreeing to the operational model of the future national crime research institution, the opinions of all other participants are as follows:

- (1) Two (T1 and T5) agreed to establish the institution in the form of a "corporation" for the following reasons:
 - 1) Saving government budget and expenditure: by establishing a foundation with government budget or by raising funds from the public (approx. NT\$2 billion) before operating the institution can earn interest from the fund every year (NT\$20 million to NT\$30 million). Then, the government can plan a budget of about NT\$10 million to NT\$20 million a year to run the institution. As a corporation, the institution can raise funds from society and accept government subsidization to make more flexible and effective use of the fund and budget.

- A corporation structure enables more flexible personnel recruitment. Unlike the
 public service system which provides legal protection for employees and makes it
 difficult to dismiss unsuitable personnel.
- 3) A corporation structure also enables greater freedom for academic research as the limitations of administration and policies will not apply. This will give more flexibility and space for academic research.
- 4) A corporation structure enables more a flexible scope of business, such as organizing symposia, seminars, workshops, or publishing books and journals. All can increase the sources of income.
- (2) T2 believes that as the government fund is limited, the NIRI president needs to raise funds personally. The result of fundraising thus becomes the key or limit of survival of a corporation. Therefore, T2 remained natural in this issue and was not sure if a corporation structure works for the institution.
- (3) Only T6 agreed to establish a national crime prevention research institution in the form of an independently operated corporation under the supervision of a crime prevention research division established by the Executive Yuan.
- (4) T2 and T3 supported the establishment of a national crime prevention research institution in the manner of KIC and AIC, with a basic staff of 40-50 personnel. Although understaffing may occur at the beginning, by increasing budgets every year, the goal of a national crime prevention research institution will be achieved.
- (5) T4 suggested that the MOJ could establish a level one "crime prevention research institute" and recruit a staff of 40 research fellows in four years by two stages.
- (6) T5 recommended the Executive Yuan could establish a cross-ministerial research organization resembling the organization of the office of drugs and crime and directly coordinate relevant departments, such as the Ministry of Health and Welfare and the MOJ, to provide required research resources. This organization can be set at a national level.
- (7) T7 proposed that this institution could be run in a dual-track model in the future: by the public and private sectors at the same time. As it is rather difficult for the academia to direct the institution for the moment, a collaborative model by the government and the academia seems to fit Taiwan's current situation. It is not definite in actual operation but rather a matter of direction. Such as the case of AIC, if the public sector has more resources, it is better for the execution department to take charge of everything. Conversely, if adequate resources are available from the private sector, the government can leave it to the private sector.
- (8) Establishing a research "task force" as in Singapore.
 - Besides agreeing to the "corporation" model, T5 suggested the "task force" model. The Executive Yuan can integrate the research resources of similar tier one departments to form a task force and assign a political appointee to chair the institution concurrently, with members recruited from dedicated research fellows of relevant tier one departments based on the needs of individual projects to implement important national research projects.

Item 9

(1) Short-term goals

- 1) To increase research funds.
- 2) To increase the number of research fellows.
- 3) To increase hardware and software equipment required by research.
- 4) To hire short-term visting fellows to join the research as by NIJ.
- 5) To raise the level of the CPRC to a level one the MOJ organization (some put this in the medium-term goals).

(2) Medium-term goals

- 1) To strive for budgets to increase the number of professional research fellows.
- 2) To raise the level of the CPRC to a level one the MOJ organization.
- 3) To transform CPRC into a "corporate" research institution.
- 4) To improve the drug meeting function of the Executive Yuan and the MOJ to turn it into an interdisciplinary dedicated research institution.
- 5) To establish a cross-ministerial research office under the Executive Yuan.
- 6) To establish a crime research institute in the Sinica Academia (some put it in the long-term goals).
- 7) To establish a national crime research database.
- 8) To form a professional research team.

(3) Long-term goals

- 1) To establish an independent national organization through either "national direction" or "corporation direction."
- 2) To establish a "corporate" research institution with government funds.
- 3) To establish an independent national research organization at least under the Executive Yuan.
- 4) To strive for the establishment of a crime research institute in the Sinica Academia.
- 5) To establish a national crime research database.
- 6) To play the role of the think tank of national crime prevention policies.
- 7) To establish a national crime prevention research database.
- 8) To make reference to the experience of foreign countries in determining the functions and duties, business, units, and personnel and through discussions.
- 9) The educational department should increase relevant disciplines at colleges and universities to cultivate talents in crime analysis, police administration, prison administration, and judiciary in order to strengthen higher education for protection and rehabilitation.

4.2.2 Collecting and analyzing data gathered from the focus group discussion with experts

4.2.2.1 Drawing up discussion outline

The topics discussed at the focus group discussion (FGD) with experts were planned and designed with reference to the background and aim of research. The four FGD items included: "survey of the necessity of establishing a national crime prevention research institution", "the

appropriate operational model for this institution", "promotional strategies and action agenda for different stages", and "straightforward and effective ways for overcoming current limitations".

4.2.2.2 Determination of participants

The FGD was held on August 17, 2016. Based on the understanding and grasp core research topics including the current status and needs of crime research, the status of crime prevention research worldwide, and the experience in crime prevention research in Taiwan, this research invited eight experts studied related fields, such as criminology, criminal policy, and law, from the countries of the referenced foreign research institutions of this research and representative research fellows of domestic national research institutions and public policies. Table 4-2 shows the list of experts participated in the FGD. All participants hold a doctorate.

Table 4-2 *List of FGD Experts*

Code	Specialty of Participants
A1	Criminal procedure law, juvenile delinquency law, criminal behavior research (organized crime and victimology), comparative method and empirical legal studies
A2	Criminal substantive law, criminal procedure law, economic criminal law, criminal sanction
A3	Criminology, restorative justice, juvenile crime, restorative justice and criminal justice
A4	Curriculum theory, curriculum design and development, core literacy, health and physical education courses and teaching.
A5	International relations, comparative politics, political economy of development
A6	Prison Act, Detention Act, Rehabilitative Disposition Execution Act, Statute of Progressive Execution of Penalty
A7	Probation system, community-based corrections, criminal policy
A8	Criminology, criminal psychology, juvenile crime, prison studies, drug abuse and drug prevention

4.2.2.3 Analysis of FGD data

Topic 1

All participants agreed that the research energy of CPRC is inadequate as the crime situation at home and abroad grows increasingly complicated and thus supported the establishment of a national crime research institution. However, due to government financial difficulty, organizational reduction, and the support uncertainty of senior government officials, the progression of establishment will be tough and difficult. Therefore, the choice of methods and strategies for establishment will be exceptionally important. How to minimize resistance and maximize assistance to double achievements with half effort requires correct strategy uses.

Topic 2

In terms of the future operational mode of the institution, most participants consider that "mission-based" should be the "short- and medium-term" focus. After staffing expansion, fund increase, and upgrade to a level one the MOJ organization, the institution can be developed into a "national" and "corporate" institution for the long run.

(1) National research institutions

1) Advantages

- a. A national crime research organization brings vital influence to the overall criminal policy to direct national crime and criminal policies and even cross-ministerial research in order to the demonstrate the "barrel hoop theory" (leadership and direction) benefits in academic research within the government system.
- b. Government-directed research has a strong sense of mission and sense of purpose to meet overall government policies in a better way.
- c. Referring to the experience of other national crime research institutions, such as KIC and AIC, as all these national crime research institutions is entitled with the country's name, Taiwan's crime research institution can be named Taiwan Institute of Criminology (TIC) to mark out Taiwan's political subjectivity and identity.
- d. With richer research resources, national crime research institutions can inject a large amount of research resources to study special and serious crimes in society to produce immediate achievements in order to timely eliminate the collective anxiety in society caused by series crimes.

2) Disadvantages

- a. As a government department responsible for criminal justice, although the MOJ attempts to convince the Executive Yuan to establish a cross-ministerial research institution, there are difficulties in implementation. If this research institution cannot be raised to a national level and remains the MOJ unit, it will be unable to play the role and demonstrate the functions to direct and lead crime research.
- b. Government policies will limit the content and scope of research to reduce the freedom and flexibility off research.

(2) Mission-based research institutions

1) Advantages

- a. Instead of stacking research outputs as literature in the database to waste valuable research resources, a mission-based research institution can effectively combine research with practice to produce practical research outcomes.
- b. Practicality is one of the basic missions of crime research institutions in order to capture and predict crime development trends. As crime internationalizes, crime research should strengthen international and regional judicial, intelligence, and academic exchange and cooperation.
- c. In consideration of the convenient access to government research data, if research institutions can construct the same data system with criminal justice and investigation, prosecution, and trial, data collection and acquisition will become relatively easier.

2) Disadvantages

If the research institution is under the MOJ, it will not be able to effectively integrate

research resources of different government departments and realize cross-ministerial cooperation. As a result, each department will act at its free own will and become bureaucratic to make research resources sharing impossible.

(3) Research-focus research institutions

Advantages

As research missions can maintain freedom of academic research and specific government research missions, research-focus research institutions can maintain reasonable allocation of research resources and will receive less manipulation from the policy of competent authorities for give broader space and more freedom to academic research.

2) Disadvantages

- a. Basically, the Ministry of Science and Technology (MOST) will be less likely to agree to the establishment of the "crime prevention research center" because both units will be level one Executive Yuan units. In addition, as the proposal must be approved by the Executive Yuan, of which the possibility is very low. If the "crime prevention research center" is established under MOST, it will only be a "task force" without adequate leadership and functions.
- b. A research-focus research institution emphasizes independency for more freedom of research and less intervention of government policies. Therefore, when a serious social order event occurs, such as the 2014 Taipei Metro attack, the government will be unable to directly request a research-focus research institution to give a research report in a short time in order to respond to the public demand for social peace as early as possible.

(4) Corporate research institutions

1) Advantages

As Taiwan's international situation is getting increasingly difficult, a corporate research institution can participate in international academic exchange and cooperation in a private status to avoid unnecessary sensitive political issues.

2) Disadvantages

Corporate research institutions mostly require government funding but without government supervision and direction. When they cannot implement government research policies and government has a financial problem, it will be difficult for the government to support a corporate research institution that will increase the policy risk.

Topic 3

(1) Suggested short-term practice

- 1) Internal seconding.
- 2) Internal integration or merger.
- 3) Increase funds and budgets.
- 4) Increase staffing.
- 5) Reach a consensus internally and implement active persuasion externally.
- 6) Promote "organizational legislation" basic work.

7) Raise organizational level.

(2) Suggested medium-term practice

- 1) Uphold the strategy of "multiple participation and public and private together" to progressively raise the level and expand the functions of the research institution; structure Taiwan's crime research academic network platform, as long as there are adequate research resources, the network platform can be expanded to gradually lead domestic crime research.
- 2) To lead crime research in Taiwan, it is possible to model the network platform of the "Department of Gender Equality" or expand the meeting function at the Executive Yuan to form a research organization in the meeting in order to build a complete internal platform.

(3) Suggested long-term practice

- 1) Form a domestic academic research development platform by gradually combining with external resources, such as schools and private search organizations, from a research organization within the government system.
- 2) Extend domestic crime research to the international academic stage by participating in regional and then international crime prevention organizations and forums.

Topic 4

- (1) Current difficulties in development of crime prevent research organizations in Taiwan
 - 1) Inability to expand staffing due to the limitation of the government's organizational re-engineering and total staff control policies.
 - 2) Inability to convince the "Directorate-General of Personnel Administration" and "Directorate General of Budget, Accounting and Statistics."
 - 3) Unclear attitude of senior officials with jurisdiction over this policy.

(2) Practices to overcome difficulties

- 1) Use of appropriate methods and connections to convince direct supervising officers, such as the justice minister, premier, and even legislators and the president to mark out the issue and emphasize the vision. For example, the Taichung City Government made some visionary and influential visions such as "turning Chenggongling into Taiwan's capitol hill" or "Legislative Yuan to the south." With the recognition of the person-in-charge and the agreement of ministers, when the head personally gives the order, this top-down arrangement can achieve the reform of crime research organization without extra efforts and even double the achievements with half effort. By that time, short-, medium-, and long-term planning can be adjusted accordingly and can even be accomplished overnight. However, the determination and perseverance of the promoter are the key to success. That is to say, faith can move mountains.
- In terms of the organization and strategy of "public administration," the MOJ should keep sequential and trace consistency in mind and follow all rules and procedures in the "organizational upgrade" process in order not to lose the focus and become disorganized. In terms of politics, it is necessary for the MOJ to first clarify what the "basic demands" are the MOJ must clearly define the purposes and demands of organizational upgrade: To deal with the rapid change of public security or meet with the government's quick response? To address the public's

desperate needs out of the deteriorating social order? All these require the support of empirical studies in order to make "the need for reformation" strongly persuasive. After finding support for the "demand," the MOJ should find the key decision-maker to support the reform by convincing him/her with all kinds of resources, either within or outside of the system. For example, the MOJ can maximize the support power through political competition, such as holding public hearings through scholars and legislators, making official visits, or arranging media coverage, to minimize the boycott power, both tangible and intangible. What are the ultimate goals? How many stages are needed? What resources are required in each stage? How many resources will be spent? Everything has to be well estimated. After achieving the goals of each stage, the MOJ should not forget to review if the "functionality" of overall organizational operation has been optimized after the upgrade and if crime problems are improved. Policy implementation is a political process and should pay attention to the following aspects: the MOJ should reach an explicit consensus in advance through internal coordination before convincing the Executive Yuan. When discussing with the Directorate-General of Personnel Administration, MJO should clearly state its standing and the cause, need, and purpose of reform and extend them to the Legislative Yuan to convince members of the Juridical Committee in order to put everything in position.

- The nature of "organizational re-engineering" is a "political process" and "political competition." Besides horizontal persuasion taking the initiative from the ministry to the Executive Yuan, horizontal persuasion at the "Legislative Yuan" is the key. As both execution and legislation are in the hands of the same political party, this complies with the collaborative government in political science and will thus reduce the controversy of this "organizational upgrade" bill. By convincing the "Legislative Yuan" and organizing public hearings, the MOJ can push the Executive Yuan and can continuously create public opinions through academic discussions and the media to send a strong message to the authority in order to create pressure favoring policy making.
- 4) "Internal seconding" is the most straightforward and most effective way without increasing personnel and budget. Internal seconding can immediately increase research energy to make more time to progressively increase the vacancy for assistant research fellows. By that time, everything is ready for the organizational upgrade.
- At present, CPRC is in an unfavorable condition in both personnel and fund terms. Therefore, the MOJ should apply a "power leveraging" strategy and establish a "multiple participation and public and private together model" to expand and link resources "within" and "outside of" the system and continuously cultivate research energy and niche by means of "internal seconding", "hiring honorary research fellows", "research outsourcing", and "collaborative research".

5. Conclusions and Recommendations

5.1. Conclusions

- (1) Taiwan has comprehensive resources for crime prevention research, and individual development of specialty and interest of research has all contributed to Taiwan's crime prevention work. However, as research organizations distribute in different government organizations, schools, and private groups or research institutions, this lacks an integral and integrated setting to favor the development of long-term crime prevention strategies. As a result, national research resources are decentralized, disorganized, and repeated. Apart from causing unwanted and unnecessary waste of valuable research resources, such a way of practice is unable to demonstrate the benefit of overall, systematic, and long-term policy planning. Hence, from the national point of view and to demonstrate the leadership and integration of research resources in relevant areas as mentioned in the "barrel hoop theory", a national crime prevention research institution can allocate and integrate resources for crime prevention research, consolidate and present topics relating to crime prevention research, instruct and discuss crime prevention research, and support the practice and policy of crime prevention research. More important, this national crime prevention research institution can become a think tank for handling crime issues and criminal policy. Therefore, it is hoped that competent authorities can facilitate the establishment of this national crime prevention research institution as soon as possible in the future.
- (2) CPRC is a level two the MOJ unit deprived of research resources such as workforce, funds, equipment, and offices. However, it is assuming the important mission assigned by the country. By contrast, when looking at the research institutions set up by the education and public health authorities, they are equipped with abundant resources. This shows that the government "emphasizes education (healthcare) and overlooks public security" in resource allocation. It is hoped that the government can consider crime governance more seriously to ensure the normal and sustainable development of crime prevention research in Taiwan.
- (3) After consolidating the data concerning the establishment and development experience of the "crime prevention research institution" in six foreign countries, this researched concluded three types of institutions: "national institutions," "mission-based intuitions," and "mission-focus institutions." The basic model and development characteristics of these institutions vary due to the difference in national conditions of each country. Therefore, it is impossible to rate them in an absolute point of view and to determine which one of them should Taiwan models when establishing our own crime prevention research institution. This research only listed the advantages and disadvantages of each type of crime prevention research institutions and the characteristics of these referenced crime prevention research institutions for the "style and model" reference of Taiwan's establishing our own crime prevention research institution in the future.
- (4) This research also introduced two research institutions specialized in "healthcare" and "education" research and compared their structural, model, and resource allocation differences with CPRC. This research found that the National Health Research Institutes established by MOHW has a unique operational model to increase the fourth type "corporation" to the type of research institution. This research also found that the research institution of either the MOHW or MOE has far more research resources, such as workforce and funds, than that of CPRC. The disparity in resource allocation suggests that the government has long overlooked the need for crime prevention research that can

keep the country safe. This research thus urges the authorities to face the disparity of resource allocation in the current policies and further hopes that our findings can draw the government's attention to the importance of the research topic and thereby to establish Taiwan's won national crime prevention research institution as early as possible.

5.2. Recommendations

- (1) When promoting the "organizational upgrade" project in this research, it is necessary to realize the harshness of the subjective and objective conditions in reality. Subjectively, it is necessary to obtain the support and approval of superior officers with decision power, including the justice minister, premier, and even the Legislative Yuan and President Ying-wen Tsai. Before the subjective condition matures, promoting this policy is like breaking ice, and it is difficult to make substantial progress in a short time. In addition, further assessments show that the objective condition is even harsher because of the limitation from the government's organizational re-engineering and total staffing control policies. Currently, while the personnel budget of all ministries has been frozen, to convince the "Directorate-General of Personnel Administration" and "Directorate General of Budget, Accounting and Statistics" to increase personnel budgets is like milking the bull. Therefore, it is exceptionally important to use appropriate methods and strategies in order to improve the current situation in a short time.
- (2) If it is impossible to upgrade the organizational level of CRPC in a short time, the use of appropriate strategies can partially improve existing difficulty to enrich research resources for CRPC in a short time. This research thus collated the important recommendations of experts and scholars as follows:
 - 1) Clear action agenda and procedures

From the viewpoint of "public administration," to promote the "organizational re-engineering" of CPRC is a "political process" and a "political competition." In the absence of a core thought, trace, and determination, the promotion process will be inadvertent and chaotic. Therefore, it is necessary to first establish the action agenda to specify the "basic demands," understand to target of service: "citizen" needs or "government" demands, and the intensity of demand. The description of the "basic demands" must be clear and true. After proposing the "demand," it is necessary to specify the direction of change, find the key decision-makers supporting different stages of the reform. After locating the "key decision-makers," persuasion with appropriate resources should start. In practice, it is necessary to carefully calculate key decision-makers at different stages and select appropriate persuaders and mobilize adequate persuasion resources, ether within or outside of the system, such as staff members, scholars, legislators, and the media. Through visits, public hearings, publications, and new media, maximize the support power and minimize the boycott power in the political competition. Lastly, assess if the expected goals are achieved. After the goals of each stage are achieved, review if the "functionality" of organizational operation is optimized accordingly and crime issues in society are improved after the upgrade. This is the basic social responsibility of the government sector.

2) Strategies or writing a convincing description of "basic demands"

This research is the most influential description of the need for an "organizational upgrade and re-engineering." Therefore, apart from cohering with the research

topic, the data collected in this research must be able to present the true current status of crimes in Taiwan, adequately reflect the problems in criminal justice and counteraction of crime, and put the main focus on the "experience of establishment and development in advanced countries", emphasizing the political and economic background of establishment, path of development, and the correlations between the scale of institutions and public security. More important, it is necessary to include the recommendations of domestic scholars and experts familiar with the contents of this research in order to turn this research into the best publicity material and description of the "organizational upgrade and re-engineering" project.

3) Strategies for convincing key decision-makers

To determine the target is the prerequisite of a persuasion job. The target of persuasion changes at different stages of promotion, such as the justice minister, premier, important legislator, and even the president. The major strategy of persuasion is to bring up the problem, cost and efficiency, and vision. For example, the Taichung City Government made some visionary and constructive visions such as "turning Chenggongling into Taiwan's capitol hill" or "Legislative Yuan to the south." With the recognition of the person-in-charge and the agreement of ministers, this top-down arrangement can achieve the CPRC organizational upgrade without extra efforts. However, the determination and perseverance of the promoter are the key to success. That is to say, faith can move mountains.

4) Effective strategies to increase workforce

By the way of "internal seconding", we can transfer those holding a master's or doctoral degree and with research ability from the prosecution, investigation, correction, and probation departments under the MOJ to temporarily enrich the research workforce in order to immediately boost CPRC's research energy. For example, this strategy enable technically avoiding the government's current personnel and fund control mechanisms to achieve the immediate effectiveness of workforce expansion within the shortest time, provided that the above principles should be considered while planning the action methods and procedures.

5) Effective strategies for organizational upgrade

First, we can review and combine the existing research resources (organizations) under the MOJ. For example, a research center can be established under the Investigation Bureau to combine with CPRC into an independently operated crime research organization.

6) Effective strategies to enrich research niche

In view of the limited research energy of CPRC and staff members are administrative officers instead of dedicated research personnel, the annual research outputs will be very limited and CPRC must outsource important research projects. As long as CPRC can point out the important research topics relating to public security or the need for fundamental crime research, it can strive for more research funds to outsource related research projects. In addition, "collaborative research" is another feasible option. As the MOJ has rich research resources and advantages, for example, the prosecution, investigation, correction, and probation departments under the MOJ have accumulated comprehensive and rich data, CPRC can launch collaborative research with schools or private academic research institutions by offering them the required research resources (data) and share the research results in order to substantially and effectively expand the niche of research.

- (3) In terms of the "operational model" of the "research institution" in the future, after concluding the opinions of participants, this research found that a "mission-based" institution is suitable for the short and medium terms. After expanding staffing and increasing funds, the research institution can upgrade to a level one the MOJ unit. By assessing the long-term development needs of the country, fulfilling the development vision of the "barrel hoop theory," and expanding the crime research niche at home and abroad, the research institution should be developed into a "national" or "corporate" research institution. As the entry barrier of a "corporate" research institution is lower, about NT\$2 billion will be enough to establish one, i.e. the lowest fund requirement, it will be a practical shortcut to break through the government's staffing and fund control, promote international academic exchange, and flexibly avoid sensitive political issues.
- (4) The strategies for promoting the establishment of a crime prevention research institution by upgrading CPRC according to participants are concluded in terms of "short-term", "medium-term", and "long-term" strategies as follows:
 - 1) Short-term strategy
 - a. Internal seconding.
 - b. Internal integration or merger.
 - c. Increase funds and budgets.
 - d. Increase staffing.
 - e. Raise organizational level.

2) Medium-term strategy

- a. Uphold the strategy of "multiple participation and public and private together" to progressively raise the level and expand the functions of the research institution; structure Taiwan's crime research academic network platform, as long as there are adequate research resources, the network platform can be expanded to gradually lead domestic crime research.
- b. To lead crime research in Taiwan, it is necessary to first integrate all resources within the system to establish a cross-ministerial sharing platform and set up a "crime research department" platform operated as a task force in the Executive Yuan. For example, the MOJ can establish a research organization at the "public security meeting" with the justice minister as the "CEO" to enhance its functions. Then, promote the level of the convener to the "Yuan" level for crime research to build a complete internal platform in the vertical organizational structure covering "department," "ministry," and "Yuan" and in the horizontal organizational structure (cross-ministerial) for coordination and connection.

3) Long-term strategy

- a. Form a domestic academic research development platform by gradually combining with external resources, such as schools and private search organizations, from a research organization within the government system.
- b. Extend domestic crime research to the international academic stage by participating in regional and then international crime prevention organizations and forums.

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Appendix Basic Information of the Establishment of Related Crime Prevention Research Institutions in Foreign Countries

Country		Institution					
Country	South Korea	Australia	USA	Japan	Mainland China	Germany	
Year of Establishment	1989	2011	1978	1958	1984	1948	
Main Missions	1. Develop guidelines for crime prevention and criminal policies 2. Establish a solid international research and interaction network. 3. Provide information on crime prevention practice for the public and expand the scope of crime prevention practice. 4. Provide competency support for related domestic crime prevention research institutions.	Improve overall criminal justice and reduce crime. Act as a communication and instruction platform for criminal policies and crime prevention practice based on evidence-based academic research.	1. Enrich criminal justice knowledge and understanding with scientific approaches. 2. Provide federal and local governments with objective and independent professional knowledge and methods. 3. Reduce overall crime and improve criminal justice effectiveness.	Research of criminal policies and the MOJ law-enforcement affairs. Judicial personnel training. Exchange with government and private crime prevention organizations in Asian developing countries.	Promote judiciary administration reformation and development. Provide intelligence support for crime prevention and reduction.	Integrate criminal law and criminology research with interdisciplinary approaches. Optimize the theory and practice of criminal law. Strengthen overall social control.	
Organization	1. Planning and Coordination Office 2. Crime & Prevention Research Department 3. Economic & Commercial Crime Research Department 4. Criminal Justice Research Department 5. Crime Statistics and Survey Center 6. International Criminal Justice Center 7. Administration Office	1. Crime Consultation Committee 2. Office of Audit 3. Research Deputy Chief (1) Crime Prevention and Criminal Law Institute. (2) Violent Behaviors and Serious Crime Surveillance Institute (3) Transnational and Organized Crime Institute. 4. Administrative Deputy Chief (1) Administration Office (2) Information Office (3) Accounting Office	1. Forensic Science Section 2. Technology Section 3. Research & Assessment Section 4. Research Fund Management Section 5. Operation Section 6. Public Relations Section	1. Integrated Planning Department 2. Research Department 3. Collaborative Research Departments (1-3) 4. International Collaborative Research Department 5. International Cooperation Department	1. Office 2. Personnel Department 3. Journal Publication 4. Prison Work Institute 5. Labor Re-education Work Institute 6. Crime Prevention Work and Countermeasures Institute 7. International Crime and Criminal Justice Institute 8. Judiciary and Human Rights Institute	1. Administration Division (1) Expert Opinion Section. (2) Translation and Compilation Section. (3) Research Institute Section. (4) Editing Office. (5) Public Relations Office. (6) Administration Office. (7) Library. 2. Research Institutes (1) Criminal Law Institute (2) Criminology Institute (3) Max Plank Institute for Human Development (Max-Planck-Institut für Bildungsforschung)	
Functions and Duties	Crime & prevention research. Publishing and promotion of research achievements. Promotion of international exchange and	Crime research Sharing of research achievements Organization of symposia Publishing of institute publications	Participation in important academic activities. Organization of symposia. Annual work reports. Organization of research	Research of criminal policies and the MOJ affairs. Judicial personnel training. Exchange with government and private crime	Research of crime prevention policies and countermeasures. Research of labor re-education Prison Work Research Research of	Research of international criminal justice and crime status Research of transnational criminal justice and crime status Establishment of	

	cooperation.		conferences and practical work meetings. 5. On-line forums: expert seminars. 6. Holding meetings and important activities. 7. Organization and sponsoring of professional training.	prevention organizations in Asian developing countries.	international crime and criminal justice 5. Research of judiciary and human rights 6. Organization of symposia and editing/publication of proceedings and journals. 7. International exchange	educational organizations 4. Cultivation of outstanding research talents 5. Expansion of international exchange 6. Publishing journals and other publications
Areas of Research	1. Criminology 2. Criminal laws 3. Criminal justice 4. Crime research and intelligence and information linking 5. Crime victimization research	1. Social cost of crime 2. Criminal justice procedure 3. Fraud crime 4. Crime investigation and prevention 5. Violent crime 6. Guns and narcotics crime and victimization 7. Crime analysis and behavioral pattern establishment 8. Public policy and issue analysis	1. Causation of crime 2. Crime prevention and control 3. Violence and victimization prevention 4. Forensic science 5. Correction practice and policies, including community-based corrections. 6. Effectiveness, legitimacy, accountability, and security of law enforcement. 7. Court and trial	Criminal policies and social order integrated survey and research: 1. crime prosecution; 2. criminal trail; 3. correction and rehabilitation protection.	1. Imprisonment and non-imprisonment work. 2. Labor re-education and compulsory drug treatment 3. Causes, trends, and countermeasures of crime 4. International crime and criminal justice work 5. Research of the theory and practice of justice and human rights and the International Bill of Human Rights 6. Promotion of crime and re-education theory	1. Criminate Law Research Division: Research of criminal law theory and analysis of criminal punishment specifications, and comparison and analysis methods. 2. Criminology Research Division: (1) Transfer of criminal proceeding and punishment procedure; (2) high-risk criminals; (3) homeland security, organized crime, and terrorism; (4) crime and social backgrounds and social changes; (5) crime and criminal policy development and transnational social management regulations 3. Max Plank Institute for Human Development: (1) Department of Comparative Criminal Law; (2) Department of Retributive Justice, Mediation, and Punishment; (3) Department of Impacts of Ageing Society, and (4) Department of International Law Disputes and Settlement.
Staffing	Administration: 20 staff members Research: 50 staff members	Staffing: 20 personnel	Administration: 55 staff members Research: 49 staff members	Omitted	Staffing: 50 personnel	Staffing: 127 personnel Including 44 doctorates