



Fairness Measurement on Procedural Justice for Policy Making in Taiwan: A Comparative Study of Cijin Seaside Park and Tamsui Fisherman's Wharf

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Public policies in a pluralistic society should be able to clarify and cope with the complicated nature of public issues dominated by multiple parties, multiple values, and subjective judgment. Therefore, instead of merely concluding with the outcome, we should also take input into account when evaluating resource allocation or assessing policy effectiveness. This research adopted fairness measurement approach of the Information Integration Theory (IIT) to analyze Cijin Seaside Park and Tamsui Fisherman's Wharf in Taiwan, and conducted procedural justice for policy-making. This dimension of procedural justice was based on the designs of input and outcome; the input was policy support and the outcome used the level of administrative cooperation as an assessment indicator. Twenty local merchants and twenty tourists were purposively sampled from each site. The study results indicated that the local merchants in both Cijin Seaside Park and Tamsui Fisherman's Wharf fit the unequal-weight averaging rule of policy support factor. They also fit the unequal-weight averaging rule of the administrative cooperation factor. As for the tourists, those in both Cijin Seaside Park and Tamsui Fisherman's Wharf fit the unequal-weight averaging rule of policy support factor. Also, they fit the unequal-weight averaging rule of the administrative cooperation factor.

Keywords: Fairness measurement, Information Integration Theory, policy-making, procedural justice, resource allocation

JEL: D63, D78, L88

Public policies in a pluralistic society should be able to clarify and deal with the complicated characteristics of "multiple parties, multiple values, and subjective judgment" that underlie the nature of public issues (Farkas and Anderson, 1974: 119). Given their pre-existing knowledge framework and ideology, experts cannot be absolutely objective and neutral (Torgerson, 1986), so their proposals and policy making are not necessarily appropriate (Dryzek, 1990; Yu,

2002). Moreover, efficiency (defined as the maximum effects of public services under limited funding) has nearly become a primary criterion in the current assessment of policy construction, its resource allocation, and performance.

Under this value judgment, "unfair" events and their associated complications in the society are often overlooked by public administrators (Frederickson, 1990; Hsu, 2003). Hence, the allocation of policy resources and its performance assessment should define the perceived deconstruction and analysis of the

multiple involved parties according to the policy problems' nature. By further integrating the tangible, objective facts with intangible, subjective perceptions, the alternatives can be compared to fulfill the intent of fairness measurement (Ostrom, 1990; Farkas, 1991; Dunn, 2004).

First, fairness measurement needs to synchronously consider the comparative dimensions of the "input" and the "outcome." Taiwan's previous policy practice has often drawn inferences from "outcomes" when it assessed the allocation of social resources or evaluated the policy performance. It pursued the end result of "formal equality" and often ignored the "substantive equality" approach that emphasizes on initial input. According to Dr. Sun Yat-Sen (1866–1925)¹, formal equality is not genuine equality, but substantive equality is (Yat-Sen, 1989). This implies that equality cannot be merely judged by outcomes; rather, the input should also be taken into consideration. The government will not be able to see the whole picture if it fails to resolve conflicts in pluralistic values and only assesses the public policy performance from a regional perspective.

Second, fairness measurement needs to clarify among the multiple involved parties' pluralistic indicators, including objective data and subjective perceptions. Most of the public policy performance assessments are based on objective data; they tend to emphasize actual, tangible information, and ignore pluralistic decision-making in the policies, as well as other potential,

unseen value factors. In respect to policies, the differences in viewpoints and groundwork between the public and the government are the results of different focuses of attention. Basically, the government analyzes "facts" by examining simple, actual, and objective statistical numbers, whereas the general public appraises the situation using their personal standards of subjective perceived "values". The differences in judgment criteria and indicator systems between the public and the government naturally develop differences in policy resource allocation and performance evaluation. Hence, controversies of "unfairness" arise as the multiple involved parties hold different perceptions.

In summary of the above discussion, the highlights of fairness measurement should include definitions for the parties involved and for the input and outcome indicators. The concept of fairness measurement has three models. The oldest one was proposed by Aristotle, who emphasized the interpersonal comparison of inputs and outcomes. The fairness model proposed by Adams (1965) focused on the comparison of the individual's inputs and outcomes. The present study is based on the theoretical foundation of the Information Integration Theory's fairness rule proposed by Anderson (1974). It synchronously emphasized the comparison of individual inputs and outcomes, as well as their interpersonal comparison.

This study intended to clarify and compare the policy resource inputs and outcomes between Kaohsiung City's Cijin Seaside Park and New

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Taipei City's Tamsui Fisherman's Wharf in Taiwan through the experimental design of fairness measurement. The subsequent analysis further explored the multiple involved parties' fairness perceptions under the regional differences between southern and northern developments.

Differences in Southern and Northern Developments

Since the Nationalist government relocated to Taiwan in 1949, the military and civilian elite that came with the regime mostly settled in northern Taiwan. In pursuit of economic developments, the government also allocated more attention to the northern areas, as they contained more concentrated industrial and business developments. After the martial law was lifted in 1987, Taiwan gradually transformed from a one-way decision making government into a bidirectional mechanism, where the public could also participate in policy-making. Some of the social elite overly advocated the concepts of democracy, and the local consciousness slowly became rooted in some of the people. As the changes were especially widespread in southern Taiwan, the political territories of Chinese Nationalist Party (Kuomintang, KMT) in the north and Democratic Progressive Party (DPP) in the south were gradually established. In the eight years of DPP's ruling that began in 2000, the party emphasized the concept of localization as a strategy to gain election votes. This has created a deeper sense of localized subject consciousness (Huang, 2008).

As a result, the developments of southern and northern Taiwan gradually diverged. Development

in Kaohsiung City was deprived of incentives and motivations. Krumholz (1982) believed that urban-rural gaps were mostly generated by different kinds of unfairness during the processes of urban development. He also emphasized that the government's public policy planning should focus on improving the welfare of people in the lower and middle classes. However, most of the actual choices and evaluations relied on the principle of attending to the majority people's public welfare.

Krumholz (1982) believed that these problems about unfairness regarding poverty and developments were founded on the country's overall development. The solutions lie in national legislation and law enforcements; otherwise, the local political structures and environments would be difficult to change. Alternatively, in respect to the basic procedures of development, the governors in power, political appointees, and civil servants (urban planners, developers) should all possess clear and definite objectives. If not, it would be difficult for them to respond to problems under limited institutional resources. To summarize, it is worthwhile to think about the social attention and policy resources that have been allocated to developments in southern and northern Taiwan by the central and local governments over the past few decades. In reference to the field observations and research by Huang (2008), the issues can be divided into the aspects of regional social conditions and government effectiveness as explained below:

–The Base Stock of Social Conditions

The present case study focused on Kaohsiung City and New Taipei City as examples. Although

there was a population growth in Kaohsiung City from 1994 to 2009, the increase was about 100,000 people per decade, a distinctive contrast from New Taipei City's approximate 600,000 people per decade. According to this examination, not only did Kaohsiung City experience brain drain in its local development, but its population structure also comprised some citizens who were introspective, conservative, and deprived of innovative spirits. They did not possess enough social vitality to spontaneously participate in public affairs, and they lacked supervision from public opinion and the media. Furthermore, participation in the third sector was less active; the overall social vitality failed to accumulate, aggregate, and become deeply rooted.

-Policy Making and Government Management Effectiveness

Huang (2008) believes that Kaohsiung citizens have strongly recognized the government's neglect of problems and its unclear orientations. Being skeptical about the necessity and practicability of the government's public infrastructure implementation in recent years, Huang also believes that political parties manipulated public opinions for election purposes and influenced the allocation of policy resources. These have all contributed to the negative reinforcement of the maximization of policy resource benefits in Kaohsiung City.

If policy making fails to understand the progress and current status in different regions or fails to consider the basis of social conditions (such as population structure), the development process will lead to contradictions and conflicts

as a result of different social conditions. These will be reflected in a region's economic and political developments.

Case Selection

This study used tourist harbor parks in southern and northern Taiwan as examples, namely Cijin Seaside Park in the southern Kaohsiung City and Tamsui Fisherman's Wharf in the northern New Taipei City. The selection is explained below:

In order to correspond with fair research dimensions, the case subjects needed to be comparable in terms of their objective conditions.

- a. In respective to the dimension of overall inputs, the construction of Cijin Seaside Park in Kaohsiung City (main body of the architecture) was completed in 1993, and it costs about NTD 500 million. In comparison, Tamsui Fisherman's Wharf in New Taipei City (main body of the architecture) was completed in 1998 after the Taipei County (at the time) spent about NTD 560 million on its construction. In the first phase, there were no huge variations between the costs of building the main bodies of these two architectures.
- b. Judging from the dimension of overall inputs, while both architectures similarly cost about NTD 500 million to construct, an examination of the outcomes over the past decade revealed that there was a difference in visitor counts between the two attraction sites that was as great as 1.5 million people in 2010.
- c. Both attraction sites were located in similar environments, surrounded by multi-purpose seafood stores, restaurants, street vendors, and fish markets. Other tourist attractions in their surroundings included trails, other themed

parks, observatories, and historical sites. Nearby means of transportation included the MRT and commuter boats, as well as cross-harbor tunnels and bridges.

Research Objectives

This study used fairness measurement to investigate the multiple involved parties' fairness perceptions of the policy resource inputs and outcomes of Cijin Seaside Park and Tamsui Fisherman's Wharf. Under the regional differences in southern and northern Taiwan, their fairness perceptions were compared:

- (1) To clarify the connotations of the integrative rule for the multiple involved parties' fairness perceptions about Cijin Seaside Park and Tamsui Fisherman's Wharf from the perspective of the fairness measurement of inputs and outcomes in an information integration experiment.
- (2) To provide public administrators and governmental decision-making units with the operation procedures for assessing and analyzing policy fairness based on the theoretical implications of the information integration experiment on fairness perception, and to provide references for empirical research on fairness.

LITERATURE REVIEW

Fairness

The concept of fairness is a metaphysical philosophy that emphasizes humans' subjective perceptions. If the majority of a group feels that they are being treated equally, there is equity and justice. If they sense different treatments, the feelings of unfairness and unjust will go on to trigger all kinds of interpersonal disputes. In the process of fairness evaluation, feelings of

unfairness often arise from inconsistent subjective perceptions (Sandel, 1982). The common conceptions of "fairness" can span the definitions of equality, equity, impartiality, and justice (Griffin, 1996). Adams (1965) had emphasized the importance of fairness in business and industry analyses, and Anderson (1974) proposed the following core features of fairness judgment:

- a. Fairness is determined by the interpersonal comparison of inputs and outcomes. Inputs refer to people's valuable contributions, whereas outcomes refer to the tangible or intangible feedbacks that people receive, instead of outputting as the form of tangible rewards.
- b. Both inputs and outcomes comprise multiple determinants. In addition to being evaluated by actual events, inputs can also be measured by seniority, age, gender, effort, and individual appearance. Similarly, in addition to wages, outcomes can also be measured by privileges, titles, status symbols, etc.
- c. Feelings of fairness and unfairness are personal perceptions that rely on individual appraisals of objective situations. The same situation may generate different feelings in different people.
- d. A fair status is merely an ideal point on the continuum of unfairness; people will try to alleviate their feelings of unfairness. For example, when staff feels the pay is not enough, they may yearn for promotions or some status symbols. If those cannot be obtained, out of a mindset to compensate themselves, they may spend less efforts on

work, or they may exaggerate their contributions to some important tasks.

e. Fairness is often defined by algebraic rules.

Procedural Justice

The diversity in the general public's common perception of "fairness" is reflected on the economic, social, political, and governmental levels (Chen, 2004). On the economic level, owing to the prevalence of capitalism and liberalism, people do not only ask for basic fairness in income distributions, but they also pursue fairness in "income-making rules" and distribution mechanisms (Friedman, 1962; Tobin, 1970). On the social level, not only do people pursue equity in individual social strata and class mobility, but they also demand the consideration of fairness in their living environments, education opportunities, justice adjudication, and social welfare. Unfair events would often lead to social reform movements (Sandel, 1982; Inglehart, 1990). On the political level, people's judgments or assessments of whether they have equal rights to participate in politics and vote are the keys that determine whether they are satisfied with the government. On the governmental level, the government should consider, implement, and support both regional developments and central decision-making as it allocates, executes, and manages policy resources.

The administration management processes determined and implemented by public policies or government projects was used to assess and explore the procedural justice in policy regulations. The dimension of fairness was emphasized in procedural justice or process rules. This concept of fairness was derived from

Nozick (1974), who proposed that whether the policies changed the outcomes fairly was determined by "whether the initial resource distribution was fair" and "whether the rules for resource transfer were fair". If both conditions were fair, then the outcomes should be fair as well.

Related research includes fairness in promotion and performance assessments (Chung, 2000; Kuo and Chang, 2011). Others are issues related to equity in the processes of arbitration and coordination (Huang, 2005; Ho, 2007), including indicators like government management, organizational policy coordination, construction, and performance assessment. The studies mainly focused on primary data and emphasized on comparing the differences in conversion between the inputs and outcomes of policy-making and organizational management and execution.

Models of Fairness Measurement

The three fairness models make comparisons based on cases that involve two people (*a* and *b*). The symbol *I* denotes personal "inputs", which include any specific inputs of monetary goods, as well as intangible inputs like effort, time, and social status. The symbol *O* represents personal "outcomes", including any distribution of monetary goods, job positions, morale, and status symbols. They are each described below:

(1) The fairness model proposed by Adams (1965) emphasizes the comparison of an individual's inputs and outcomes:

(Adams' model)

$$\frac{O_a}{I_a} = \frac{O_b}{I_b}$$

(2) The earliest model proposed by Aristotle

emphasizes the interpersonal comparison of inputs and outcomes:

(Aristotle' s Model)

$$\frac{Oa}{Ob} = \frac{Ia}{Ib}$$

The main difference between the models from Adams and Aristotle lies in their comparison structures. Adams' model compares between the individual *O* and *I* for each *a* and *b*, followed by a comparison between *a* and *b*. In contrast, Aristotle' s model compares between the individual *O* and *I* for each *a* and *b*, followed by a comparison between the variables of *O* and *I*.

(3) The fairness model of the Information Integration Theory proposed by Anderson (1974) simultaneously emphasizes the comparison of personal inputs and outcomes, as well as the interpersonal comparison:

(Averaging Model)

$$\frac{Oa}{Oa+Ob} = \frac{Ia}{Ia+Ib}$$

Anderson (1974) conducted information integration experiments to empirically verify and construct the specific cognitive algebra of fairness. He used them as the basis for investigating the following three problems in fairness measurement: comparison structures, multiple determinations, and subjective values. Moreover, the theoretical foundation of "multiple determination" in the Information Integration Theory was used to integrate stimulus of multiple sources. Through the assessment of "personal values" by functional measurement, the two basic fairness issues of "multiple determination" and "personal value measurement" were analyzed.

THEORETICAL FRAMEWORK

The Information Integration Theory is a psychological measurement theory that Anderson started to develop in 1960. The basic concept of the theory is illustrated in Figure 1, where "S" denotes "policy target item," which is the objective stimulus value as reflected in many related evaluation guidelines or attributes. The lower case "s" represents the subjective scale value of "S," formed after the decision maker completes the psychological measurement. The lower case "r" indicates the subjective overall reaction value in the decision maker' s mind after he/she psychologically integrates the subjective scale values of all attributes. And "R" denotes the external observable reaction value that expresses the subjective overall evaluation in the decision maker' s mind. Among these notations, "s", "r" and integrative functions are all intrinsic and cannot be externally observed. Anderson (1981) discovered that the integration process from lower case "s" to "r" usually involves adding, multiplying, equal-weight averaging, and unequal-weight averaging. These operations are called "cognitive algebra" (see Appendix-I).

(1) The Adding Rule

Adopting the adding rule means that the subjective values of all positive information will be added. In cases where the subject' s perception level needs to be enhanced, the option of higher psychological scale values may be used or more positive information may be provided. The adding rule does not only exhibit parallel factor graphs, but the effects of its interaction terms from the

analysis of variance (ANOVA) are also statistically insignificant. This means that every stimulus variable is an independent function.

(2) The Averaging Rule

The averaging rule can be further divided into two categories, namely the equal-weight rule and the unequal-weight rule. The distinction between the two categories is whether the weights of the same factors differ between levels. For an integration rule in unequal-weight averaging rule, the verification method is basically the same as that for the multiplying rule (Shanteau, 1984). The graph of the factor design is fan-shaped. Both main effects and interaction effects of the ANOVA results reach statistical significance, and the interaction effects are focused on the “linear x linear” component. Other high-level interaction components are not statistically significant. The primary judgment criteria are explained in the section on “multiplying rules.” In contrast, for an integration rule in equal-weight averaging rule, the two lines should be parallel. This quality is the same as that of the adding rule.

In order to distinguish between the two categories described above, the information integration theory offers a critical test to identify equal-weight rule. The critical test observes whether the factor graph of a single factor intersects with that of two factors. If the factor graphs are parallel and ANOVA does not find any interaction effects, it is likely an adding or equal-weight rule. However, if the critical test finds the factor graphs to intersect, then the possibility of it being an adding rule is rejected; it would be an equal-weight rule instead. The intersection of the two lines indicates that the effects of the added

information are not equal. Hence, the adding rule is not established.

(3) The Multiplying Rule

When an integration rule is in the multiplying rule, its perception level depends on the product between variables. This also means that there is a variable with disproportionate weight in the combination of variables. In other words, when the scale value of a particular variable is increased by unit “a” the overall perception level is increased by the product of unit “a” and the scale value of other levels. When the scale value of a particular variable in the multiplying rule is extremely low, it would be difficult to increase the perception level by increasing the scale values of other variables. A more effective method is to increase the particular variable’s own scale value.

The Information Integration Theory is based on Thurstone’s theory of psychological measurement, verified and supported by the empirical research of Norman. H. Anderson, James Shanteau, David Weiss, Gregg Oden, Manuel Leon, Martin Kaplan, Kent Norman, and Jorman Louviere. Therefore, its validity in psychological measurement has been established (Huang and Wang, 2012).

METHODOLOGY

–The Definition of Involved Parties

According to Hammond, McClland and Mumpower (1980), the number of subjects for an information integration experiment should be approximately between 10 to 15. In the present study, the involved parties who made value judgments and interpersonal judgments (the main

group of subjects) were composed of local merchants (who must be local residents) and visitors at Cijin Seaside Park in Kaohsiung City and Tamsui Fisherman's Wharf in New Taipei City. Twenty local merchants were purposively sampled from each site, which added up to a total of forty local merchants who were also the local residents. Twenty tourists were also sampled from each site, adding up to a total of forty tourists. Tourists who have visited both Cijin Seaside Park and Tamsui Fisherman's Wharf were preferred. There were two groups of subjects from each site; each group comprised twenty subjects, which added up to a total of eighty participants.

-The Definition of the Input and Outcome Indicators

Field observations and interviews with experts revealed different backgrounds underlying the construction policies in the two places. After the construction was completed, the two local governments' levels of positivity in marketing, promoting, repairing, and maintaining the attraction sites and the levels of support from local residents and tourists were all factors of influence. This dimension was based on the designs of input and outcome; the input was policy support and the outcome used the level of administrative cooperation as an assessment indicator.

-The Design of Questionnaire Items

The experimental design was based on the "input-outcome linkage" in the fairness measurement model of Information Integration Theory. The experimental information for the subjects was: the inputs were the levels of policy

support from the local and central governments; the outcomes were the level of administrative cooperation after the attraction sites started to operate. The experiment followed a 3*2 level design in both locations. The questionnaire items totaled $(3*2) * (3*2) + 5 = 41$ items. Subjects were asked to make two judgments. The first one was to compare the attraction site with itself, whereas the second one was to compare it with the other site.

Here is an example below:

About the developments of Cijin Seaside Park and Tamsui Fisherman's Wharf:

Cijin Seaside Park (Tamsui Fisherman's Wharf) received high levels of policy support from the local and central governments before it was built, and it has a high level of administrative cooperation after it started to operate;

Tamsui Fisherman's Wharf (Cijin Seaside Park) received low levels of policy support from the local and central governments before it was built, and it has a high level of administrative cooperation after it started to operate;

What do you feel about the level of unfairness in this situation?

-Procedures for Test Administration

The standardized operation principles for Information Integration Theory were organized as suggested by Guan (1998).

(1) Experiment Guidelines

The basic concepts of the study are explained in concise words, which include the definition of each primary stimulus variable as well as the definitions and criteria of the reaction scale values.

(2) End Anchors Setup

End anchors refer to the two endpoints whose stimulus value is either slightly greater than the maximum experimental stimulus value or slightly smaller than the minimum experimental stimulus value. All of the experimental stimuli in the study design are in-between the two end anchors.

(3) Pretest

Several subjects were arranged for pretest. The primary objective was to enhance the techniques of experimental control, and to adjust the presentation of the experimental variables' texts and diagrams.

(4) Preliminary Rehearsal

A 60 cm ruler was created and presented to subjects with the non-graduated side facing them. According to the principle of end anchors, the ruler only has its left endpoint marked "low" and right endpoint marked "high." The experimenter presented the question cards to subjects, and asked them to move the cursor on the ruler to mark their scale estimates of each question.

(5) The Actual Experiment

The actual experiment follows the same operational procedures as previously described for the rehearsal. Each question was presented or repeated three times, and the experimenter recorded the subjects' reaction values to these questions. All reaction values have to be fully recorded.

(6) Statistical Analysis

The information integration theory provides the two methods of "factor graph differentiation" and "statistical testing" to verify whether the integration rule is additive, single factor, multiplicative, or average.

RESULTS

The Information Integration Rule for Policy Support from Local Merchants in Both Places

As shown in Table 1, the main effects of policy support from local merchants in both places for the policies in Cijin and Tamsui reached statistical significance, as did the effects of their interaction. The interaction effects were found on the "linear x linear" component, while the rest of the higher order interaction components did not reach statistical significance. This meant that the algebraic rule for participants' perceptions followed the differential weight averaging rule.

Source of Variation	df	f-ratio
Cijin policy support	2	0.54*
Tamsui policy support	1	183.22**
Cijin policy support x Tamsui policy support	2	193.23**
Linear x Linear	1	11.03**
Linear x Second order component	1	173.29

* $p < .05$

** $p < .01$

Table 1: ANOVA (Local Merchants' Policy Support)

The Information Integration Rule for Administrative Cooperation from Local Merchants in Both Places

As shown in Table 2, the main effects of administrative cooperation from local merchants in both places for the policies in Cijin and Tamsui reached statistical significance, as did the effects of their interaction. The interaction effects were found on the "linear x linear" component, while the rest of the higher order interaction components did not reach statistical significance.

Source of Variation	df	f-ratio
Cijin administrative cooperation	2	0.39*
Tamsui administrative cooperation	1	118.28**
Cijin administrative cooperation x Tamsui administrative cooperation	2	189.21**
Linear x Linear	1	18.32**
Linear x Second order component	1	193.39

* $p < .05$

** $p < .01$

Table 2: ANOVA (Local Merchants' Administrative Cooperation)

This supported the conclusion of factorial graphic discrimination above, meaning the algebraic rule for participants' perceptions followed the differential weight averaging rule.

The Information Integration Rule for Policy Support from Tourists in Both Places

As shown in Table 3, the main effects of policy support from tourists in both places for the policies in Cijin and Tamsui reached statistical significance, as did the effects of their interaction. The interaction effects were found on the "linear x linear" component, while the rest of the higher order interaction components did not reach statistical significance. This meant that the algebraic rule for participants' perceptions followed the differential weight averaging rule, which indicated that any changes in information at either place could significantly affect the perceived level of unfairness.

Source of Variation	df	f-ratio
Cijin policy support	2	3.21*
Tamsui policy support	1	848.94**
Cijin policy support x Tamsui policy support	2	382.59**
Linear x Linear	1	153.53**
Linear x Second order component	1	983.38

* $p < .05$
** $p < .01$

Table 3: ANOVA (Tourists' Policy Support)

The Information Integration Rule for Administrative Cooperation from Tourists in Both Places

As shown in Table 4, the main effects of administrative cooperation from tourists in both places for the policies in Cijin and Tamsui reached statistical significance, as did the effects of their interaction. The interaction effects were found on the "linear x linear" component, while the rest of the higher order interaction components did not reach statistical significance.

This indicated that the algebraic rule for participants' perceptions followed the differential weight averaging rule, meaning that any changes in information at either place could significantly affect the perceived level of unfairness.

Source of Variation	df	f-ratio
Cijin administrative cooperation	2	2.74*
Tamsui administrative cooperation	1	800.76**
Cijin administrative cooperation x Tamsui administrative cooperation	2	522.09**
Linear x Linear	1	1169.03**
Linear x Second order component	1	13.04

* $p < .05$
** $p < .01$

Table 4: ANOVA (Tourists' Administrative

CONCLUSION

Tamsui Fisherman's Wharf and Cijin Seaside Park were both highly respected by local merchants and tourists, and the two attraction sites mutually affected each other. In terms of interpersonal analysis, the interpersonal comparison of local merchants and tourists at the two places revealed mutual influences between individual indicators from the two places. In respect of Kaohsiung government's local policy support and administrative cooperation to Cijin Seaside Park, not only did policy support include the actual investment of construction funding, but it also included the levels of support from the local and central governments. On the other hand, Tamsui Fisherman's Wharf was selected by central government agencies to be a diverse harbor demonstration site at that time. While the support of human resources and funding from the central and local governments were integrated, the local government of Taipei County at that time also continued to manage the site after it

was built. In response to such a difference in policy support and administrative cooperation, the level of perceived unfairness was rated by local merchants and tourists to be higher for Cijin Seaside Park.

In other words, fairness measurement and comparison include the comparison of individual inputs and outcomes and interpersonal comparison, the self-measurement of local input and outcome indicators, and the comparison with individual indicators from another region. While the fair status is merely an ideal point on the continuum of unfairness, people will try to alleviate the feelings of unfairness (Adams, 1965). Cijin Seaside Park and Tamsui Fisherman's Wharf should start to examine the local economic, social, and procedural input and outcome indicators before they can make improvements and enhancements. The procedures of identifying local weaknesses, making comparisons with another place, and reducing the differences can decrease the local merchants and tourists' feelings of unfairness.

IMPLICATIONS

On the procedural dimension, the integration rule for interpersonal unfairness among local merchants and tourists in the two places also emphasized the measurement of public support and actual demand on the other site. And they were found to mutually influence each other. Hence, the policy support and policy resource allocation at the central and local governments should respond to public opinions. And civil officers should also actively cooperate with relevant administrative operations. The

administration by laws without being influenced by the central or local governments, politics, and political parties should be able to reduce the feelings of unfairness regarding the procedural dimension in local merchants and tourists at both places.

–The Administration Effectiveness of Governors in Power and Public Managers

The construction of Tamsui Fisherman's Wharf was heavily supported by the central Fisheries Agency (the KMT ruled the central government at the time) with the full cooperation from the local government (belonged to DPP at the time). The central government's policy support for Tamsui Fisherman's Wharf was not influenced by political parties. After the Fisherman's Wharf was built, both parties promoted its related construction as their political achievements during election campaigns. The local governor in power at the time, County Magistrate Su, held a respectful, open, stern, demanding, and supportive attitude to the overall construction project. He asked the county government at the time to actively solve any problems; dodging of responsibility between different government units was not tolerated.

On the contrary, political factionalism is an important power in Kaohsiung's local allocation of resources. The purpose of forming political and economic alliance between local factions and organizations is to exert and expand their influences during elections. The factions often intervene with local governments' administrative operations by three means (Chu-ke, Huang, and Wang, 2010): 1. arrangements in personnel admission rights: arrange for the faction-related

personnel to serve as important primary government cadre and confidential agents, who can then directly apply administrative resources to faction development; 2. operation of political power: local politics emphasize the concepts of “balanced benefits” and “power compromise,” while public managers consolidate “patronage relationships” within the faction, they also need to offer resources to other factions to maintain a balance in competition; 3. acquisition of parliamentary seats: since the primary responsibility of the parliament is to audit the local governments’ total budget, obtaining parliamentary seats allows the faction to exchange budget audit rights for political and economic benefits. Under this assumption, could the administrative effectiveness of Kaohsiung’ s governors in power and public managers really respond to the demands of local constructions, or would it become an allocation of policy resources? The central and local governments should think about investigating and verifying the fairness of policy resource allocation.

–The Positivity of Civil Officers

For the Tamsui Fisherman’ s Wharf project, there was a correlation between the positivity of the involved governors in power, political appointees, and civil servants with the policy marketing, public opinion communication, and efforts in actively striving for funding issuance prior to its implementation. On the other hand, after Cijin was commissioned to take over control from the original district office, followed by Tourism Bureau’ s take over, there was not a specific unit to specialize in the business. Instead, the Tourism Bureau assigned the business to its

related divisions. The project was deprived of an integrative platform; in addition, some Cijin-related businesses were transferred to other bureaus.

There were differences in the work styles between civil officers who dealt with businesses of Cijin Seaside Park and Tamsui Fisherman’ s Wharf. Speaking of Taiwan’ s current political environment, civil officers’ administration should make clear distinctions between political parties and governments, maintain professionalism and strengths, and stabilize the political power to perfect the civil officers’ system of administrative neutrality. The operation of Taiwan’ s political parties and politics should have a definite distinction between “politics” and “professional administration.” How can the administration of civil officers be unaffected by ruling political parties under party alterations is an important topic.

LIMITATIONS AND FUTURE DIRECTIONS

This study intended to clarify and compare the policy resource inputs and outcomes between Kaohsiung City’ s Cijin Seaside Park and New Taipei City’ s Tamsui Fisherman’s Wharf through the experimental design of fairness measurement. The subsequent cross-domain analysis further explored the multiple involved parties’ fairness perceptions under the regional differences between southern and northern developments. In summary of the overall research process and results, the present study proposed the following research limitations and suggestions for future studies:

(1) As most of the local residents were seniors, this information integration experiment

incorporated local merchants into the definition of experimental subjects. Moreover, since the tests were administered at landmark tourist attractions, the experimental process was prone to interferences and interruptions. For example, merchants needed to greet customers, tourists chat with their companions, and the overall environment was noisy. These factors impaired the continuity of test administration.

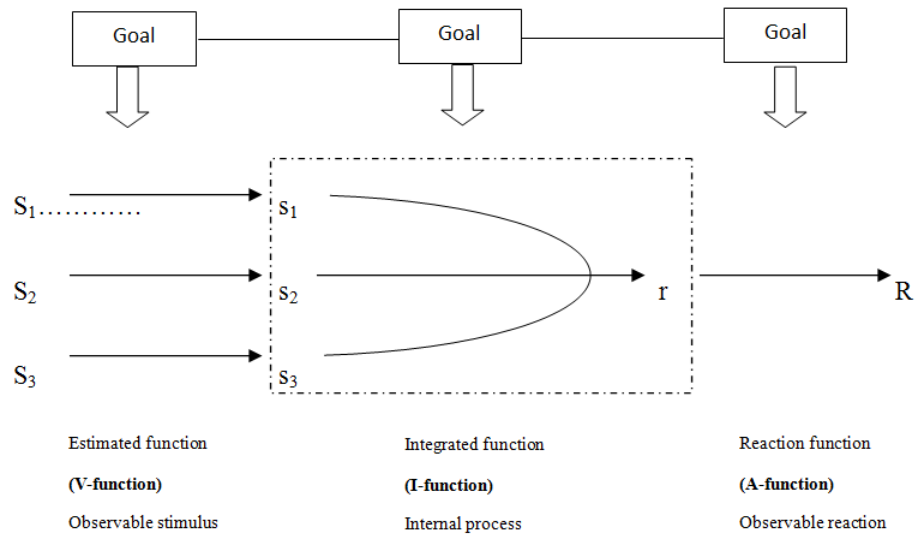
(2) This study was conducted in first-person judgment, in which subjects took part from a personal perspective under the given environmental settings. Subjects responded to the experimental design of “inputs-outcomes” for better internal validity. However, in the study of problems related to fairness, it was more difficult to conduct empirical analysis on first-person judgments, as they tend to produce extreme results. For example, subjects might perceive their inputs to be more valuable, or their judgments might be influenced by other related events, objects, or emotional factors (Farkas, 1991).

(3) Fairness measurement was conducted in the information integration experiment to understand the research method for cognitive integration, and provide stern analyses and methods for internal validity. The method's external validity was also supported by empirical findings from abroad (Marshall & Lee, 1995). Therefore, in order to increase the external validity, the comparison of related groups, issues, or targets under the differences between southern and northern Taiwan can continue to be investigated.

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Source: Anderson (1981)

Figure 1: Information Integration