

The Korean Casino Impact Study: Longitudinal Study of Residents' Perceptions of Casino Development by Using Multi-Group Analysis

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Introduction

- The foundation of gaming impact studies mainly from the tourism impact studies of the 1970's.
- Residents' perceptions and attitudes are important because they are rarely expressed in the political and development decision-making process.
- Gaming impact studies in Korea.

Agenda

- Background
- Study Purpose
- Conceptual Model
- Methodology
- Results
- Conclusion and Implication

Residents' Perception of Casino Development

- A growing awareness by local residents of both the negative impacts of rapid development and the positive employment benefits of casino development (Carmichael, Peppard and Boudrea, 1996)
- Attention gaming development has evolved into the exploration of host community residents' quality of life issues (Perdue et al. 1999)
- Residents believed that it enhanced the quality of life in the community by providing positive impacts on the economy (Giacopassi, Nicholes and Stitt, 1999)

Underlying Theory: Social Exchange Theory

- The social exchange theory assumes that residents' perceptions are affected by the perceptions of the exchange people believe they are making (Ap, 1992).
- Jurowski et al. (1997) stated that residents' support for tourism development should be considered as their willingness to take an exchange based on the social exchange theory.
- Residents who perceived benefits from gaming were more likely to be positive in assessing the quality of life (Perdue, Long and Kang, 1999).

Social Exchange Theory (cont'd)

- Personal benefits were strongly correlated with support for gambling and its positive impacts, such as jobs and recreation opportunities (Lee and Back, 2003).
- Residents support for gambling was a function of personal benefits, future of the community, positive and negative impacts of gambling, and quality of contact with gamblers.

Korean Casino Industry

- As of February 2006, fifteen casinos are registered to operate in Korea (two more are in underdevelopment).
- Korean government legalized the gaming in the run-down former coal-mining center of Chongsun, Kwangwon province for domestic customers in December 1995.
- The first and the only one domestic casino, Kangwon Land Casino, was opened in October 2000.
- Despite the many positive impacts of the casino, a considerable number of residents have expressed concerns about its negative impacts, specifically social problems.

Geographical Location of Casinos

The map shows the geographical locations of seven casinos in South Korea, each marked with a green oval and a pink starburst shape. The locations are:

- 1. Seoul**: Located in the northern part of the country, near the DMZ.
- 2. In-chon**: Located in the northwestern part of the country.
- 3. Pusan**: Located in the southeastern part of the country, near the coast.
- 4. Kyungju**: Located in the eastern part of the country, near the coast.
- 5. Jeju**: Located on Jeju Island, a large island in the southern part of the country.
- 6. Seorak**: Located in the northeastern part of the country, near the coast.
- 7. Kangwon-Land**: Located in the northeastern part of the country, near the coast.

Three playing cards are overlaid on the map: the King of Spades, the Jack of Spades, and the Ace of Spades.

Kangwon Land Casino



- Ownership (Government 51%, Private - 49%)
- Table games: 132 , Slots: 960
- Rooms 477
- Visitors (2004): 1.8 Million; Revenues: \$ 680 Million
- # of Employees: 3,000

Kangwon Land Casino



- Theme Park (\$35 Million dollar project)
- Golf Courses(18 holes)
- Ski Slopes under Construction

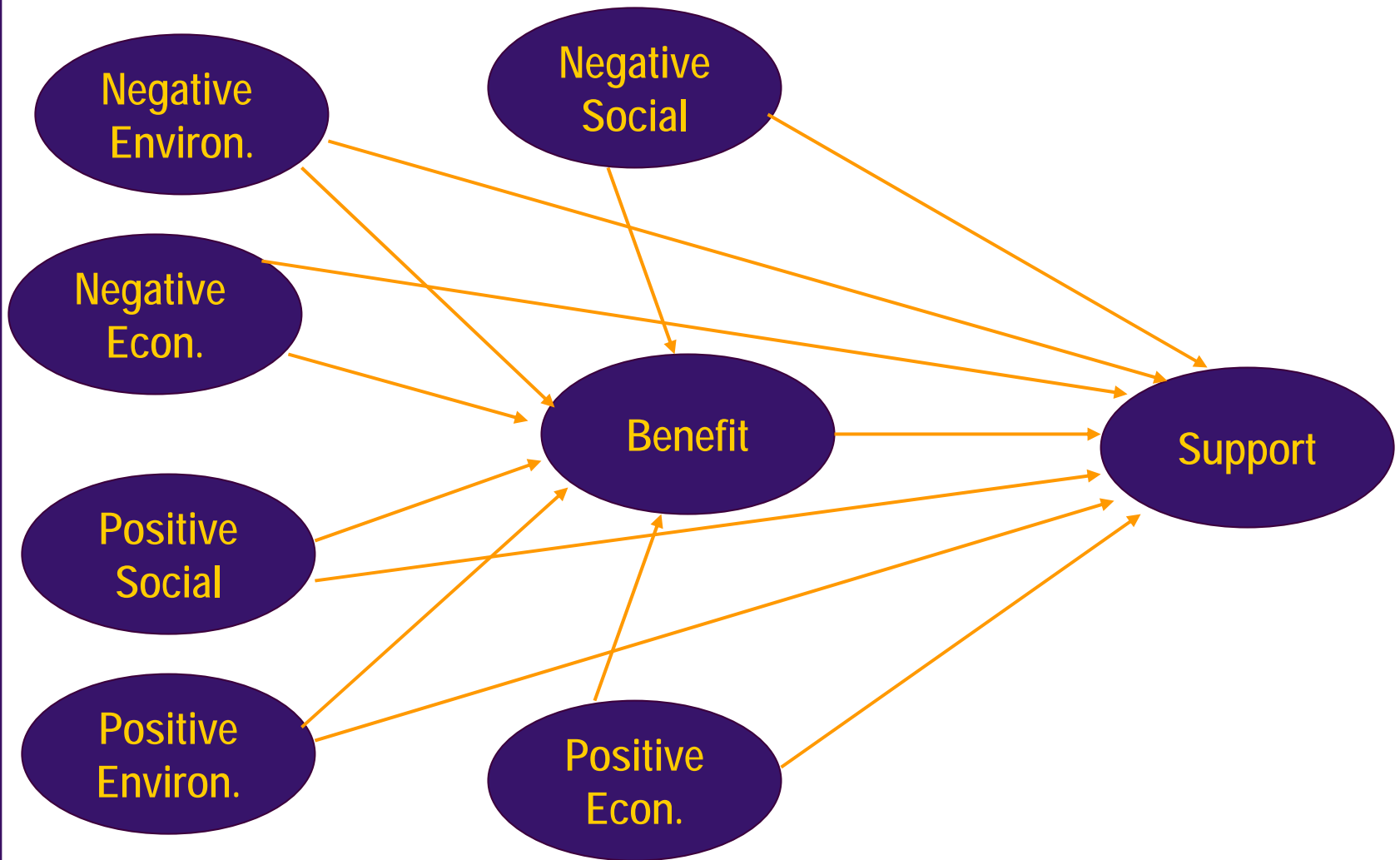
Previous Study

- Pre- and Post-data
- Residents' support for casino development was highly dependent on perceived benefits
- The effects of positive economic impacts became more significant in predicting perceived benefits after the casino opened
- Limitation: a potential bias in the historical examination

Study Purpose

- To explore the changing attitudes of residents towards casino development over four years, using structural equation modeling analysis.
 - To confirm the underlying factors affecting residents' perceptions of casino development.
 - To examine the relationships and the changing behaviors of impact, benefit, and support variables in a longitudinal pattern based on the social exchange theory.

Proposed Model



Research Methodology

- Instrument – Five-point-Likert scale
 - Impacts: 30 items
 - PE (Personal Income); NE (Cost of living); PS (Quality of life); NS (Gambling addicts); PEv (Preservation of natural beauty); NEv (Traffic congestion)
 - Benefits: 4 items (e.g., casino development provides benefits to myself)
 - Support: 5 items (e.g., The development of casino is the right choice for this city).

Research Methodology

■ Data Collection

- Two casino communities, designated by a special law as run-down mining areas, were chosen for survey research.
- Pre: six months prior to the casino opened (517 respondents)
- Post 1: administered to those who had responded to the pre-survey after the Casino opened six months later (404 respondents)
- Post 2: One and a half years later than the previous data (415 respondents) – 205 respondents were remained
- Post 3: One year after the previous data (567 respondents) – 187 were remained.

Respondent Profile

- Male respondents: 50.2%
- Median age: 32-49 years (60%)
- Median monthly income: \$1,156
- Median Length of Residence: 21 to 40 years
- Married: 72.1%
- Home ownership: 50.2%

Measurement Results

- Content validity ensures that the measure includes an adequate and representative set of items that would describe the concept.
- The lists of attributes used to measure negative/positive social, environmental, and economic factors as well as benefits and supports were selected after (1) an extensive literature review, (2) interviews with tourism academics in the field of tourism impacts, and (3) interviews with community leaders of the casino town.
- All items were pilot-tested and respondents were asked to evaluate the appropriateness of the measuring instruments.

Measurement Results

- Reliability – All constructs have coefficient alpha over .70 as suggested by Nunnally (1978).
- Convergent Validity – Average of variance extracted (AVE) each latent construct showed greater than .50 as suggested by Anderson and Gerbing (1988).
- Discriminant Validity – All AVE was greater than squared correlation coefficient of inter-correlated constructs.

Confirmatory Factor Analysis

Eight factors were confirmed throughout the data.

- pre: CFI=0.91, NNFI=0.90, RMSEA=0.08;
- post 1: CFI=0.91, NNFI=0.90, RMSEA=0.08;
- post 2: CFI=0.94, NNFI=0.93, RMSEA=0.07; &
- post 3: CFI=0.95, NNFI=0.95, RMSEA=0.07

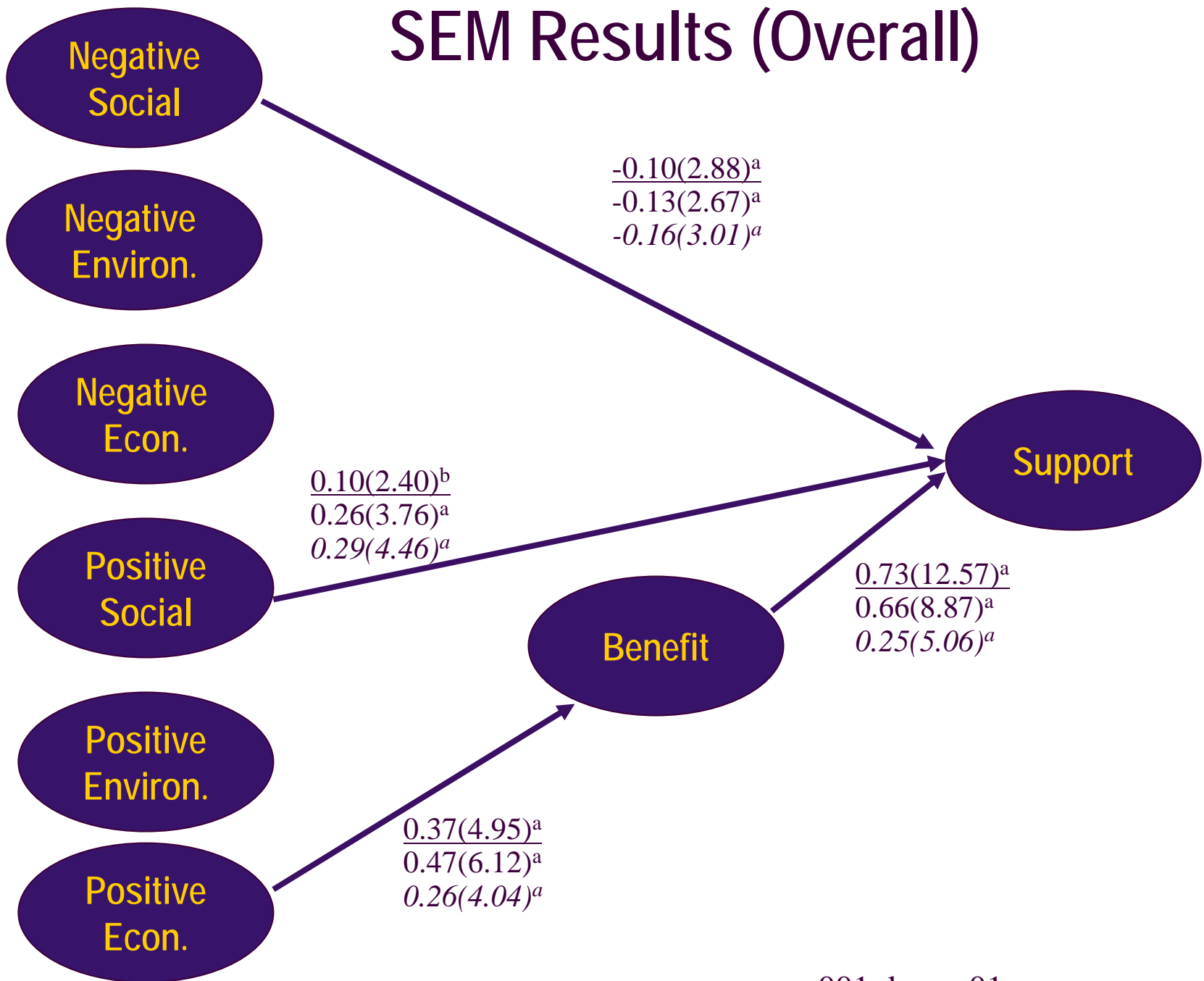
Model Comparison for Group Analysis

Model	χ^2	df	RMSEA	CFI	NNFI
For Full Group Analysis:					
Model 1 (Free)	8791.42	2400	0.071	0.94	0.93
Model 2 (L(X)Y=IN)	9198.20	2487	0.073	0.94	0.93
<i>Model 2 – Model 1($\Delta\chi^2/\Delta df$)</i>	<i>406.78</i>	<i>87</i>			
For Partial Group Analyses:					
Pre Vs Post1					
Model 3.1 (Free)	4307.94	1200	0.071	0.94	0.93
Model 3.2 (L(X)Y=IN)	4349.00	1229	0.072	0.93	0.93
<i>Model 3.2 – Model 3.1($\Delta\chi^2/\Delta df$)</i>	<i>41.06</i>	<i>29</i>			
Model 3.3 (L(X)Y=IN, BE=IN,GA=IN)	4471.11	1242	0.074	0.93	0.93
<i>Model 3.3 – Model 3.2($\Delta\chi^2/\Delta df$)</i>	<i>121.7</i>	<i>13</i>			
Post1 Vs Post2					
Model 4.1 (Free)	4536.52	1200	0.074	0.93	0.92
Model 4.2 (L(X)Y=IN)	4718.19	1229	0.075	0.93	0.92
<i>Model 4.2 – Model 4.1($\Delta\chi^2/\Delta df$)</i>	<i>181.67</i>	<i>29</i>			
Post2 Vs Post3					
Model 5.1 (Free)	3841.16	1200	0.071	0.95	0.94
Model 5.2 (L(X)Y=IN)	3884.29	1229	0.072	0.95	0.94
<i>Model 5.2 – Model 5.1($\Delta\chi^2/\Delta df$)</i>	<i>43.13</i>	<i>29</i>			
Model 5.3 (L(X)Y=IN, BE=IN,GA=IN)	3900.40	1242	0.069	0.94	0.94
<i>Model 5.3 – Model 5.2($\Delta\chi^2/\Delta df$)</i>	<i>16.11</i>	<i>13</i>			
Model 5.4 (L(X)Y=IN, BE=IN, GA=IN, TE(D)=IN, PS=IN)	4043.56	1303	0.068	0.94	0.94
<i>Model 5.4 – Model 5.3($\Delta\chi^2/\Delta df$)</i>	<i>143.16</i>	<i>61</i>			

Results of Comprehensive Model Testing

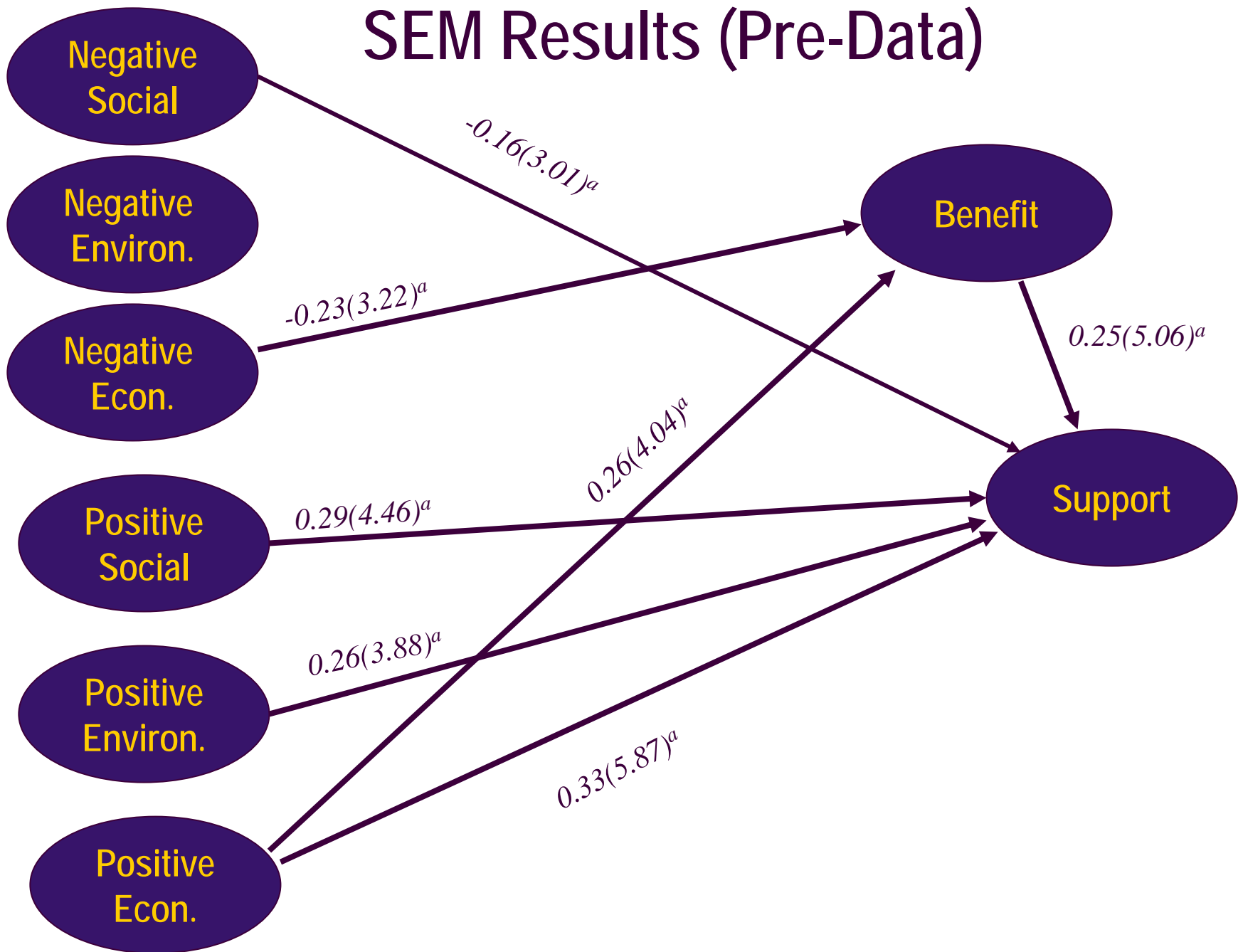
Estimates		Pre	Post 1	Post 2	Post 3
Paths	PE → Ben	0.26(4.04)	0.47(6.12)	0.38(4.90)	0.35(4.95)
	NE→ Ben	-0.23(3.22)	-0.08(2.53)	-0.03(0.86)	0.07(1.32)
	PS → Ben	0.10(1.41)	0.11(0.86)	0.08(2.01)	0.15(2.15)
	NS→ Ben	-0.08(1.22)	-0.19(1.29)	-0.26(4.42)	-0.13(2.66)
	PEv→ Ben	-0.01(0.15)	0.15(1.25)	0.19(2.04)	0.23(3.07)
	NEv→ Ben	0.03(0.51)	0.02(0.27)	0.16(0.79)	0.02(0.36)
	PE → Sup	0.33(5.87)	0.04(0.57)	0.03(0.51)	0.05(0.88)
	NE→ Sup	0.02(0.34)	0.01(0.22)	-0.09(0.64)	-0.16(0.63)
	PS → Sup	0.29(4.46)	0.26(3.76)	0.11(1.95)	0.12(2.09)
	NS→ Sup	-0.16(3.01)	-0.13(2.67)	-0.12(2.31)	-0.10(2.66)
	PEv→ Sup	0.26(3.88)	0.14(1.45)	0.10(2.04)	0.17(3.02)
	NEv→ Sup	0.01(0.11)	0.05(1.10)	0.01(0.23)	0.03(1.11)
	Ben → Sup	0.25(5.06)	0.66(8.87)	0.77(12.23)	0.71(13.91)
R²	R ² Ben	0.12	0.50	0.41	0.50
	R ² Sup	0.44	0.63	0.75	0.84
Fit	χ ² (p-value)	2178.49(.00)	2129.45(.00)	1749.48(.00)	2091.68(.00)
	df	600	600	600	600
	CFI	0.93	0.94	0.94	0.95
	NNFI	0.92	0.93	0.93	0.95
	RMSEA	0.077	0.076	0.071	0.069

SEM Results (Overall)



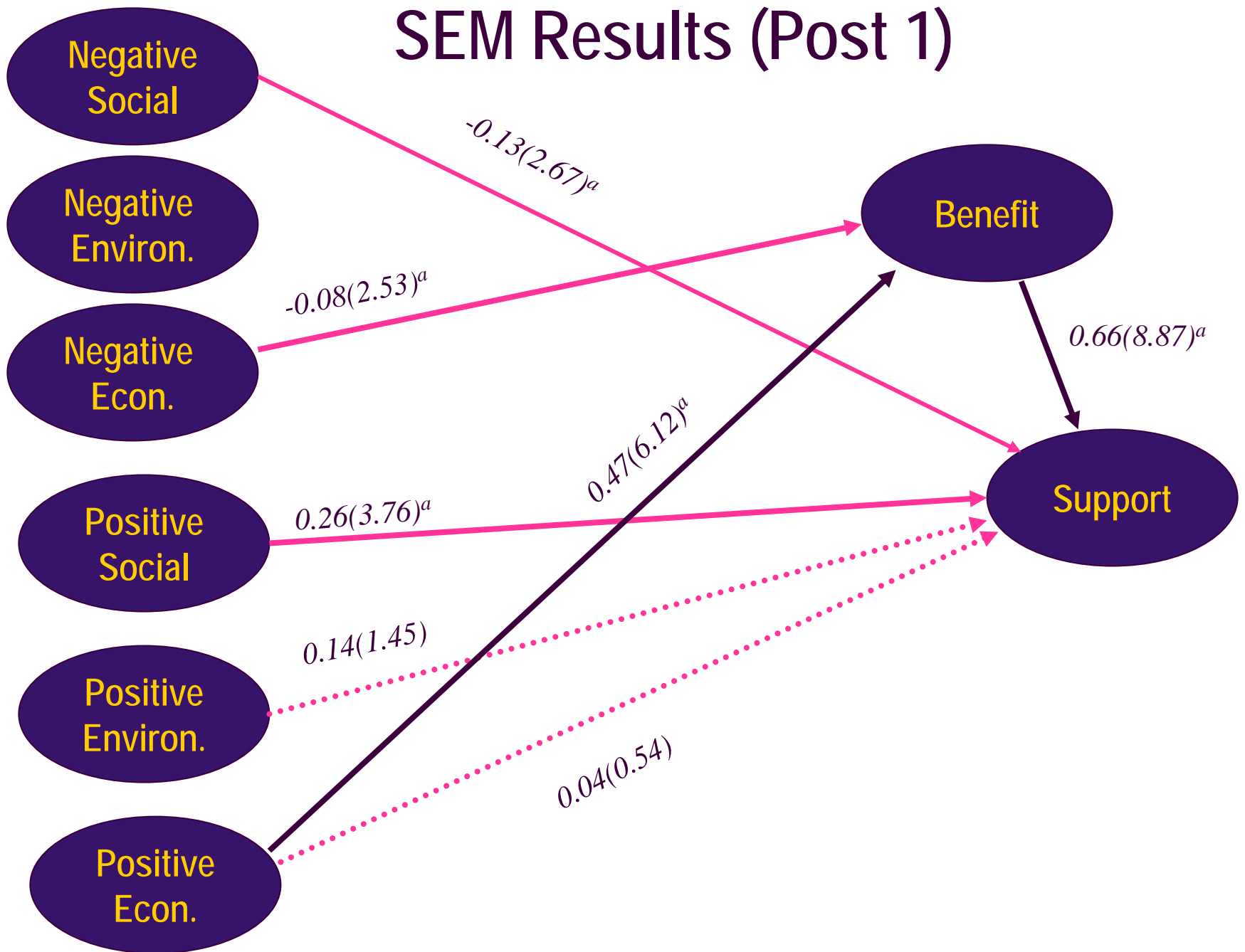
a. $p < .001$; b. $p < .01$

SEM Results (Pre-Data)



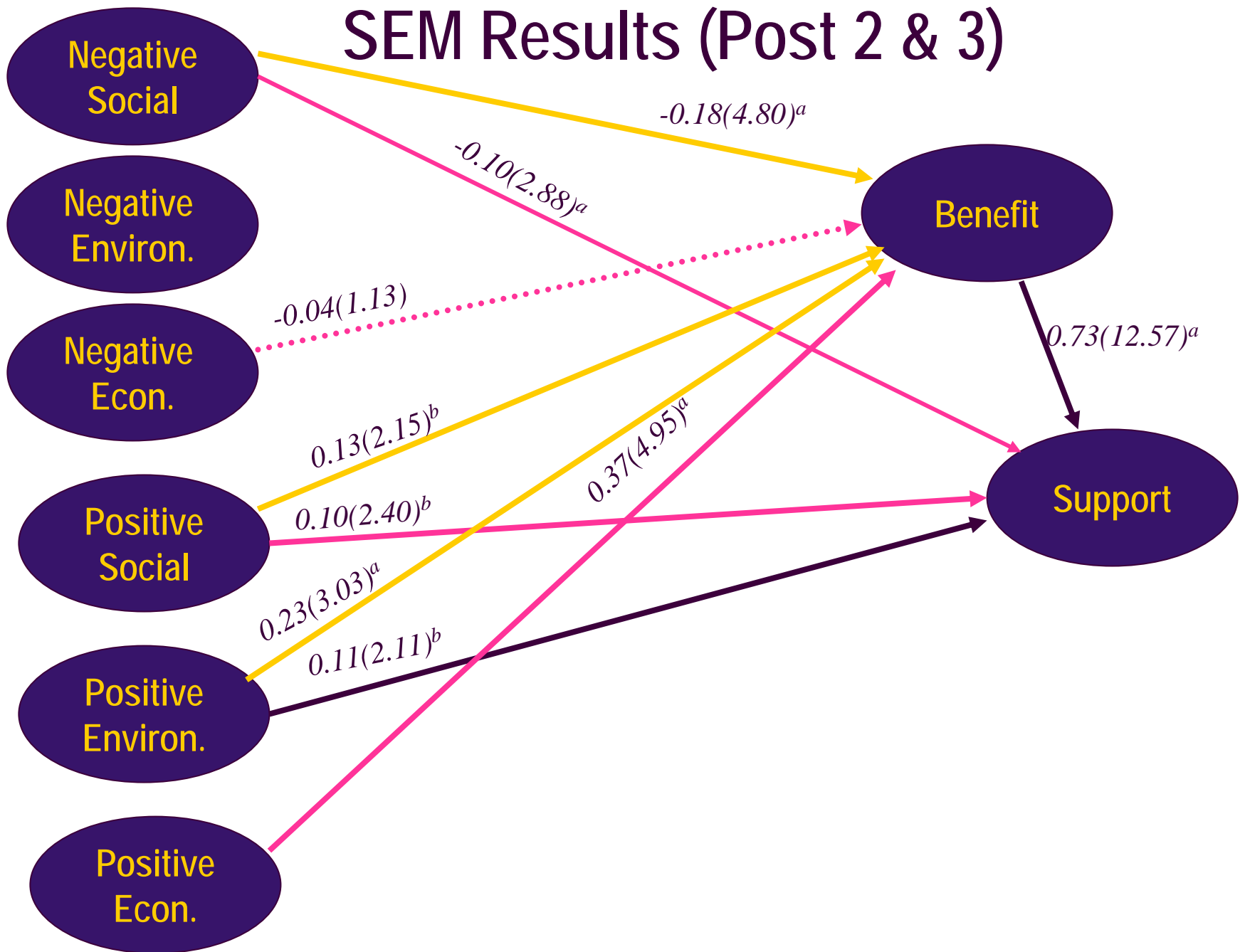
a. $p < .001$; b. $p < .01$

SEM Results (Post 1)



a. $p < .001$; b. $p < .01$

SEM Results (Post 2 & 3)



a. $p < .001$; b. $p < .01$

Discussion

- Overall, perceived benefit had the strongest direct effect on support.
- Pre-data: positive economic impact had the strongest total effect on support followed by the negative social impact
- Post 1: positive economic factor had a significant effect on support only when mediated by benefit. Positive and negative social factors were less likely to be predicted by their level of support

Discussion (cont'd)

- Post 2: the positive relationship between benefit and support was strengthened. Social factors had significant impacts on benefits as well as positive environment. Both the positive and negative social and positive environmental factors had significant direct effects on support.
- Post 3: residents' perceptions did not change two years after the casino's opening and thereafter.

Conclusion and Implications

- The social exchange model fits very well in explaining residents' attitude toward casino operation for pre and post-survey data
- Benefit factor was most significant in determining support for casino development, followed by the positive economic factor.
- Policy makers should identify the best methods for presenting the benefits of casino development to local residents.
- Casino operators and policy makers should make efforts to minimize the negative social impacts.
- Policy makers should consider creating a positive educational environment.

How to Minimize Social Impact (Kangwon Land Casino)

- Established Korean Problem Gambling Center (www.gamblerclinic.or.kr).
- Provide counseling service: on-site, office, telephone, and internet.
- Branch office was opened in metropolitan Seoul.
- Conduct research, seminar, and alert program.



How to Minimize Social Impact (Kangwon Land)

- ID Check for all people at entrance and their visit is recorded into CRS.
- Limited access for local residents (once a month).
- Restricted entry for those who visit more than 20 times a month.

How to Minimize Social Impact (Kangwon Land)

- Billboards, signs, and advertising towers.
- Tracking car owners at pawnshop and restrict them.



How to Minimize Social Impact (Kangwon Land)

- Surveillance camera (e.g., detecting loan shark).
- On-site clocks were installed.



No Smoking Area (Kangwon Land)

- No smoking for all areas (except for designated smoking area).



Questions

