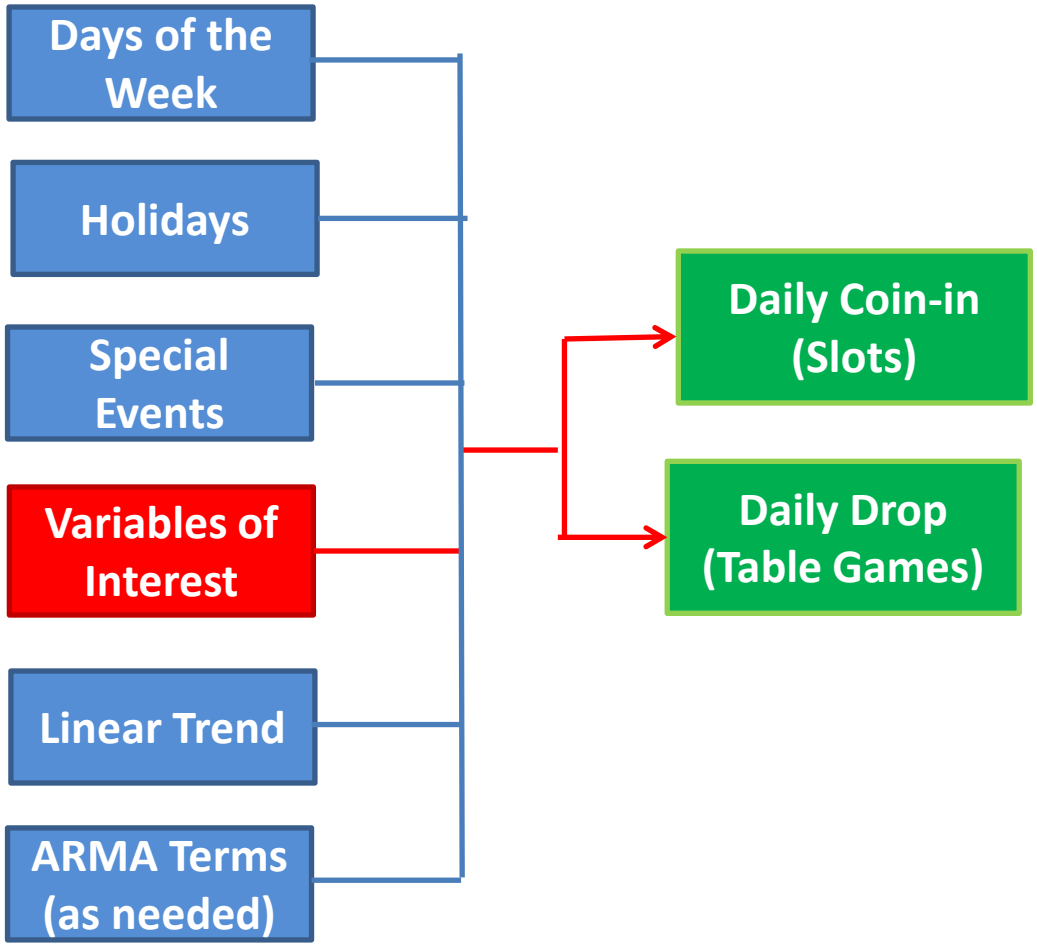
The Indirect Contribution of Non-gaming Amenities to Casino Gaming Performance

Elena Shampaner
Pinnacle Entertainment
and
Sarah Tanford
University of Nevada-Las Vegas

The Lucas Paradigm



Dining-Gaming Relationships

UNLV William F. Harrah College of HOTEL ADMINISTRATION

Effect	Source
Restaurant covers indirectly impact slot and table volume in a variety of casino settings: Las Vegas, local, regional, riverboats, racinos	Lucas & Santos, 2004 Tanford & Lucas, 2011 Kalargyrou, Singh & Lucas, 2012
Stronger for comped than cash meals	Suh, Tanford & Singh, 2012
Stronger for local casinos than regional destinations	Tanford & Lucas, 2011 Tanford & Suh, 2013
Differential effects as a function of restaurant type and casino worth segment	Tanford & Suh, 2013
No significant effect	Lucas & Brewer, 2001

Entertainment-gaming relationships

UNLV William F. Harrah College of HOTEL ADMINISTRATION

Effect	Source
Entertainment covers indirectly affect slot coin-in (1 of 2 resorts) and cash table drop (both resorts)	Suh & Lucas, 2011
Entertainment covers do not affect gaming volume in Las Vegas or Atlantic city casinos	Suh & Tanford, 2012
The effect of entertainment on gaming increases in the hours before and after the show	Suh, 2011
Adding a new entertainment venue increases table game but not slot volume	Lucas & Tanford, 2010
The financial impact of entertainment effects is small	Suh & Lucas, 2011; Suh, 2011

Hotel-gaming relationships

UNLV William F. Harrah College of HOTEL ADMINISTRATION

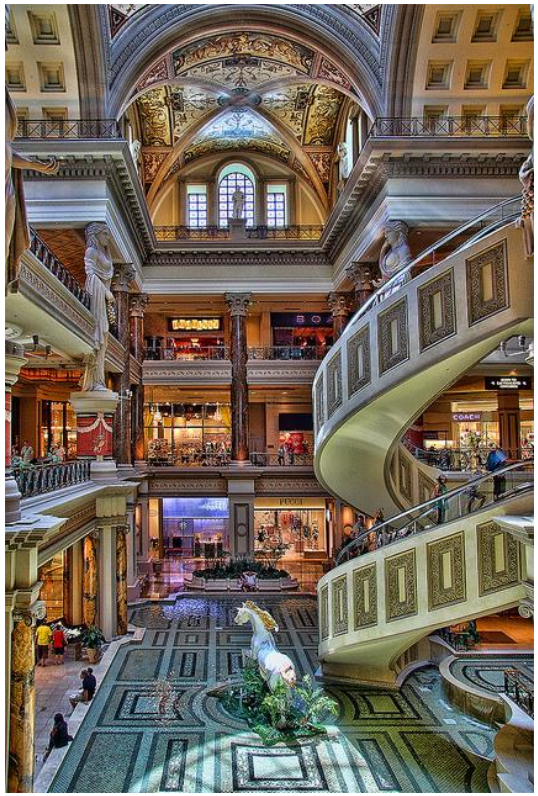
Effect	Source
• Wholesale occupancy impacts untracked (no player card) coin-in and cash drop • Group occupancy is negatively related to untracked coin-in • FIT occupancy is negatively related to untracked cash drop	Lucas, 2011
Occupancy omitted from model of blackjack cash drop due to multicollinearity	Lucas, 2004

Unknown Non-Gaming Impacts

UNLV William F. Harrah College of HOTEL ADMINISTRATION

Golf?

Retail?



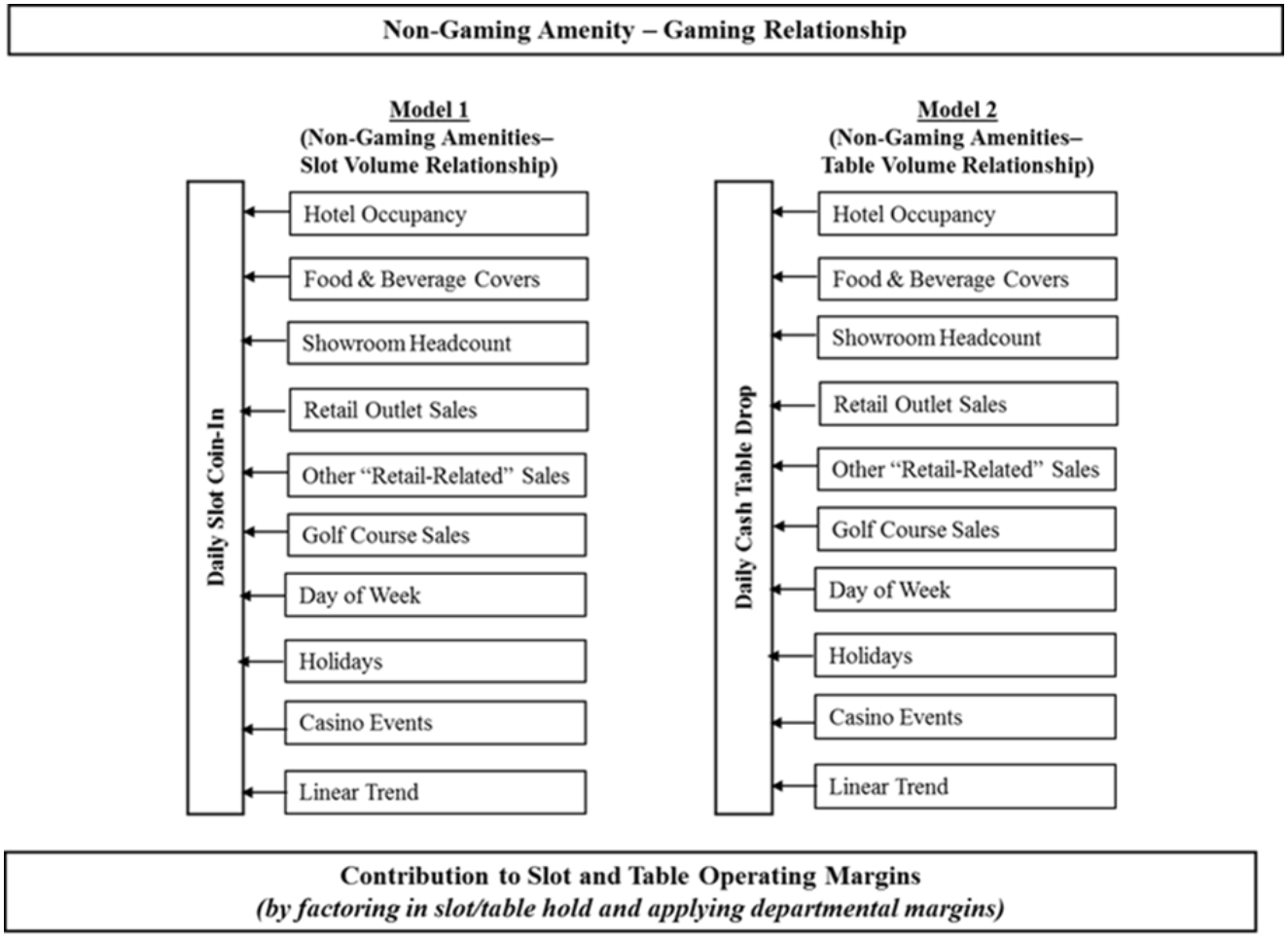
Other?

Which non-gaming amenity has the strongest indirect gaming impact?

Objective

UNLV William F. Harrah College of HOTEL ADMINISTRATION

Evaluate the simultaneous impact of all non-gaming amenities on gaming volume



Methodology

- Data source
  - Daily operating data from Jan 1, 2011 – Dec. 31, 2011
  - Southern U.S. regional casino
  - ~1,000 hotel rooms
  - Multiple food and beverage outlets
  - Golf course
  - Retail outlets
  - Spa/salon

Methodology

- Analysis
  - Simultaneous multiple regression time series analysis
  - Dummy variable coding for binary variables
    - Holidays = 1 on holiday and surrounding dates, 0 otherwise
    - Day of week = 1 if Monday, 0 otherwise, etc.
    - Special events and promotions = 1 on event day, 0 otherwise
  - Autoregressive (AR) and Moving average (MA) terms to correct for autocorrelation
  - Trend variable to capture linear trend over time
  - Non-significant variables removed

Results

UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Descriptive Statistics

Variable	Minimum	Maximum	Mean	Standard Deviation
Slot coin-in	$3,563,677	$27,568,286	$8,568,368	$4,192,155
Cash table drop	$74,474	$2,885,051	$1,402,813	$420,681
Hotel occupancy	53.1%	100.0%	90.0%	11.3%
Food & beverage covers	1,753	13,041	4,510	1,783
Entertainment headcount	0	5067	124	486
Retail sales	$3,806	$61,652	$16,153	$8,372
Golf sales	$0	$17,437	$4,922	$3,072
Other sales	$2,837	$138,917	$19,828	$12,628

Results

UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Slot coin-in model (R^2 = .92)

Variable	Coefficient	t-statistic	probability
Food & beverage covers	1201.32	20.84	0.000
Entertainment headcount	-1086.04	-7.76	0.000
Retail sales	84.79	6.34	0.000
Other sales	12.88	2.08	0.038
Labor Day	2940476.00	3.07	0.002
New Years	2596864.00	2.68	0.008
Memorial Day	2276811.00	2.17	0.031
Thu	935484.40	4.65	0.000
Fri	3855276.00	15.13	0.000
Sat	3615364.00	11.15	0.000
Sun	1302842.00	5.43	0.000
AR(1)	0.45	8.95	0.000

Results

UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Table cash drop model (R^2 = .87)

Variable	Coefficient	t-statistic	probability
C	674129.70	19.96	0.000
Food & beverage covers	104.06	12.15	0.000
Entertainment headcount	-62.70	-3.46	0.000
Retail sales	8.71	5.19	0.000
Labor Day	336454.20	3.18	0.002
Independence Day	559468.10	5.10	0.000
Memorial Day	517274.30	4.15	0.000
Thanksgiving	610370.80	5.67	0.000
Fri	173838.70	5.29	0.000
Sat	316690.10	6.28	0.000
Sun	241418.20	6.97	0.000
AR(1)	0.32	5.80	0.000
AR(11), AR(23), AR(30)	-0.18 to -0.12	-3.26 to -2.16	<0.050

Results

UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Profitability Analysis: Coin-in Model

	F&B Covers	Retail Outlet Sales	Other Sales
Daily slot coin-in contribution	$1,201.3	$84.8	$12.9
Slot win %		7.5%	
Daily slot win contribution	$90.1	$6.4	$0.97
Non-gaming units/day	4,510	$16,153	$19,828
Annual slot coin-in contribution	$148,318,115	$37,733,408	$7,020,103
Slot departmental profit margin		71.4%	
Annual slot win contribution	**$105,899,134**	**$26,941,653**	**$5,012,354**

Results

UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Profitability analysis: Table cash drop model

	F&B Covers	Retail Outlet Sales
Daily cash table drop contribution	$104.1	$8.7
Table Hold %	16%	
Daily cash table drop contribution	$16.6	$1.4
Non-gaming units/day	4,510	$16,153
Annual cash table drop contribution	$27,326,090	$8,254,183
Table games departmental profit margin	53.2%	
Annual cash table revenue contribution	**$14,537,480**	**$4,391,225**

Results

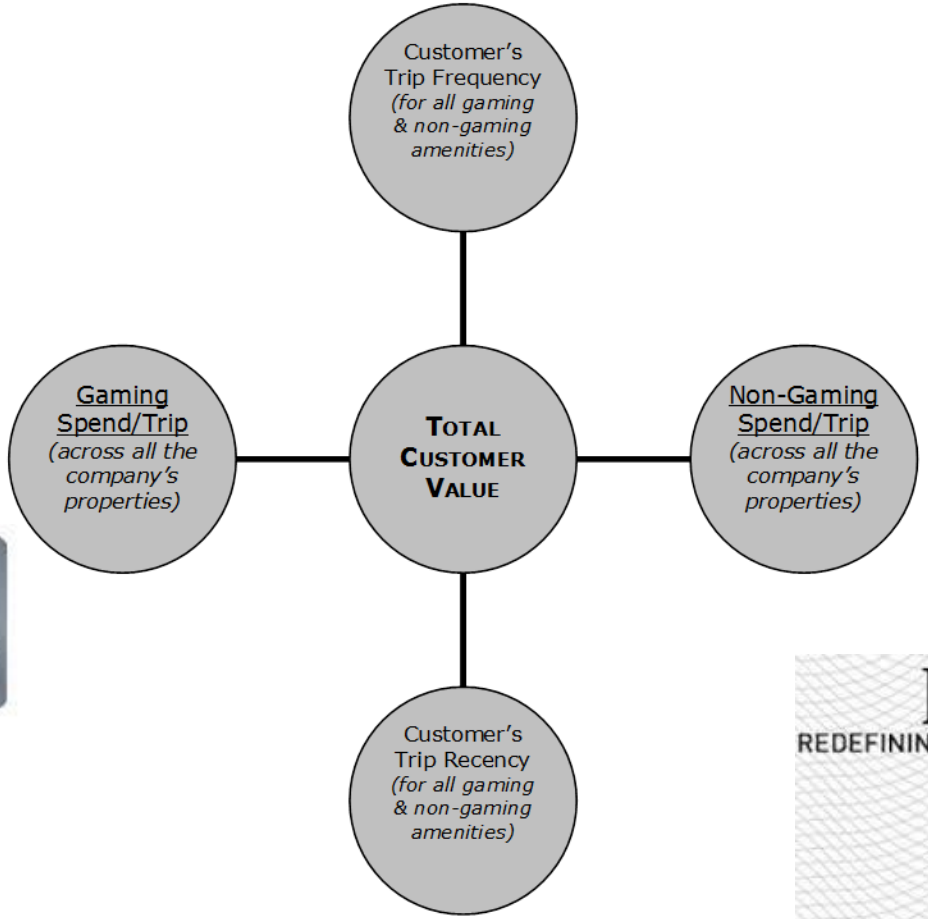
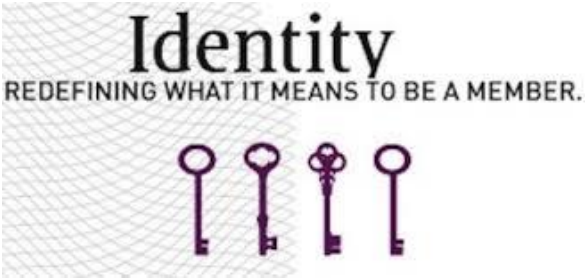
UNLV William F. Harrah College of HOTEL ADMINISTRATION

- Profitability analysis: Entertainment

	Slots	Tables
Entertainment contribution	-$1086.4	-63.70
Hold %	7.5%	16%
Daily win contribution	-$81.48	-$4.46
Avg. daily headcount	124	
Annual win contribution	-$3,687,784	-$201,895
Dept. profit margin	71.4%	53.2%
Annual profit impact	-$2,633,078	-$107,408

Implications

- Lucas paradigm is a proven method for evaluating indirect contribution of non-gaming amenities
- Operators should consider these contributions when deciding what amenities to offer
  - Need variety of F&B outlets, offer F&B promotions
  - Expand retail offerings (not just a gift shop)
  - Separately evaluate "other" amenity sources
    - Spas/salons
    - Arcade
    - Pool / cabanas
- Golf courses and entertainment must justify their expense with direct revenue

Implications

- Customer worth should be determined by total customer value.