GWTTRA 2016 Conference

Measuring Convention Services:

Measurement Invariance across Conventions and Exhibitions

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Introduction

- ❑ What is the use of a convention center?
  - To host exhibitions, conventions and large scale events
  - Customers: planners, exhibitors and attendees

- ❑ Convention industry outlooks in 2016 (Carlson Wagonlit Travel, 2015)
  - Intense competition
    - Increasing domestic supplies
    - Expanding market to international destinations

- ❑ Event types in convention centers
  - Conventions
  - Exhibitions
  - Seminars, conferences, banquets, receptions, major community events and so on.

Background

- Convention centers in the mature market are in dire need of
  - Differentiating service offerings
  - Delivering unique benefits to targeted segments

- The purpose of the study
  - Identify underlying dimensions of convention service attributes
  - Examine what services a convention center would deliver in different market segments (e.g. conventions, exhibitions)

Literature Review

Service Encounters in a Convention Center

Attributes	*Description*	*Literature*
F&B	Food and beverage (available food concessions)	Lee & Slocum, 2014
Technology	Free Wi-Fi, sufficient cellphone services	Gilmore & Mulcrone, 2013
Green	Sustainability practices (LEED certification, recycling, water and energy efficiency)	Lee, Barber, & Tyrrel, 2013
Facility	Cleanliness, maintenance, safety, security	Breiter & Milman, 2006
Spatial	Physical environments (ambient conditions, spatial layout, signs)	Siu, Wan, & Dong, 2012
Accessibility	Availability of transportation, proximity of dining options, accommodations	Lee & Min, 2013; Wu & Weber, 2005
Staff	Helpfulness, responsiveness, friendliness, knowledge of guest service staff	Lee & Min, 2013; Lee & Back 2008

Research Questions

- What services do attendees perceive as important? What are the underlying factors that contribute to this perception?

- Are there significant perceived differences in service attributes between *convention attendees* and *exhibition attendees*?

Method

❑ Research Participants

- Delegates from two association conventions and two consumer exhibitions in 2014 and 2015.

❑ Data Collection

- Sample size: *N*=1,230 ($n_{convention}$=536, $n_{exhibition}$=694)
- Convenience sampling
- Rated on 5-point Likert scale

❑ Instrument Development

- Pretest (convention sales managers, experts)

❑ Data Analysis

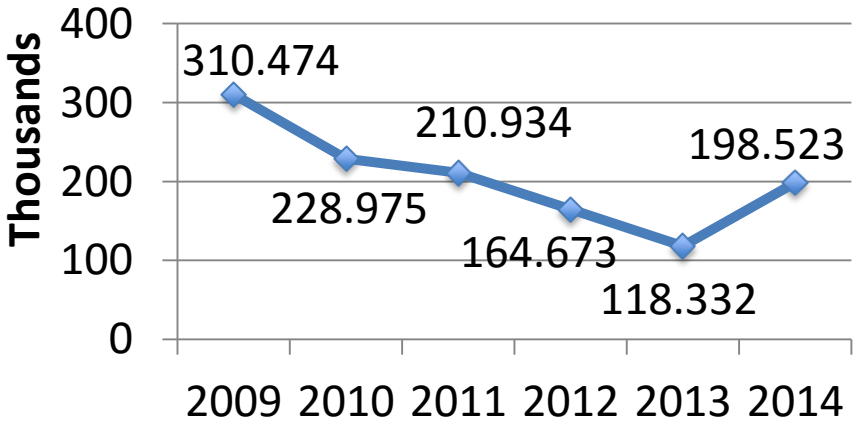
- Mplus 6.2
- Multi-group CFA with MLR estimation
- Procedures:
  1) Assess measurement invariance
  2) Test differences in latent means

Survey Site:

Phoenix Convention Center (PCC)

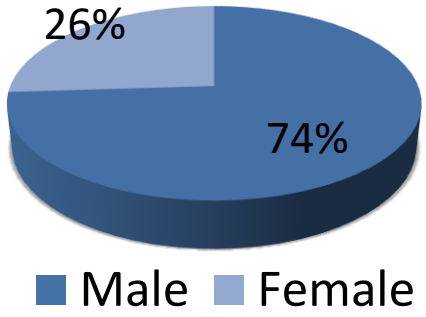
- Ranked as the top 7 convention center in the U.S. (Cruz, 2012)
- Major expansions in 1985 and 2009
- Facts/Statistics in 2014
  - No. of events: 65
  - Attendance: 198,523

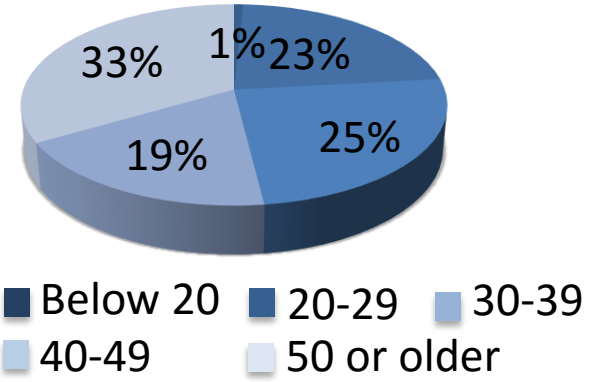
Attendance from 2009 to 2014



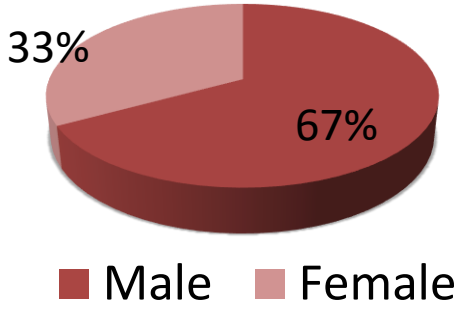
Research Participants' Demographic Profiles

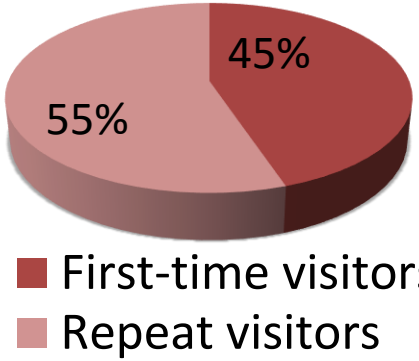
Convention attendees (n_1=536)

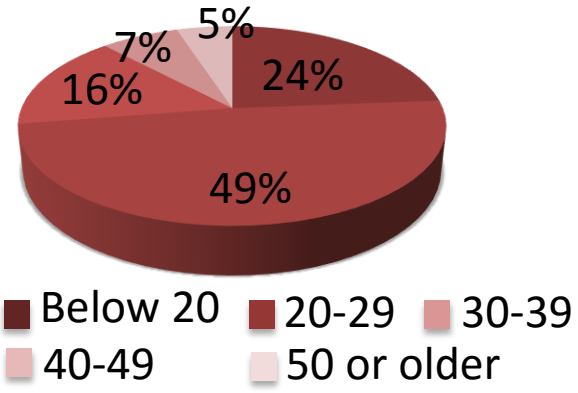




Exhibition attendees (n_2=694)







Results

Measurement Invariance

Measurement invariance testing

	S-B χ^2 (df)	*ΔS-B χ^2 (df)*	*p value*	*RMASEA*	*CFI*	*SRMR*
Group solutions						
Convention (n_1=536)	215.059 (131)	-	-	.035	.973	.048
Exhibition (n_2=694)	266.014 (131)	-	-	.041	.956	.049
Measurement invariance						
Configural invariance	502.885 (262)	-	-	.039	.964	.049
Metric invariance	515.058 (274)	14.255 (12)	.285	.038	.964	.054
Scalar invariance	584.859 (286)	86.446 (12)	<.001	.046	.955	.060
Scalar (partial) invariance[a]	549.568 (284)	40.226 (10)	<.001	.039	.960	.056
Scalar (partial) invariance[b]	532.272 (282)	17.979 (8)	.021	.038	.962	.056

Note. [a]Intercepts of the items S15 and S3 freely estimated.
[b]Intercepts of the items S15, S3, S8 and S17 freely estimated.

Results

Latent Means Comparisons (Table)

Latent mean differences across conventions and exhibitions

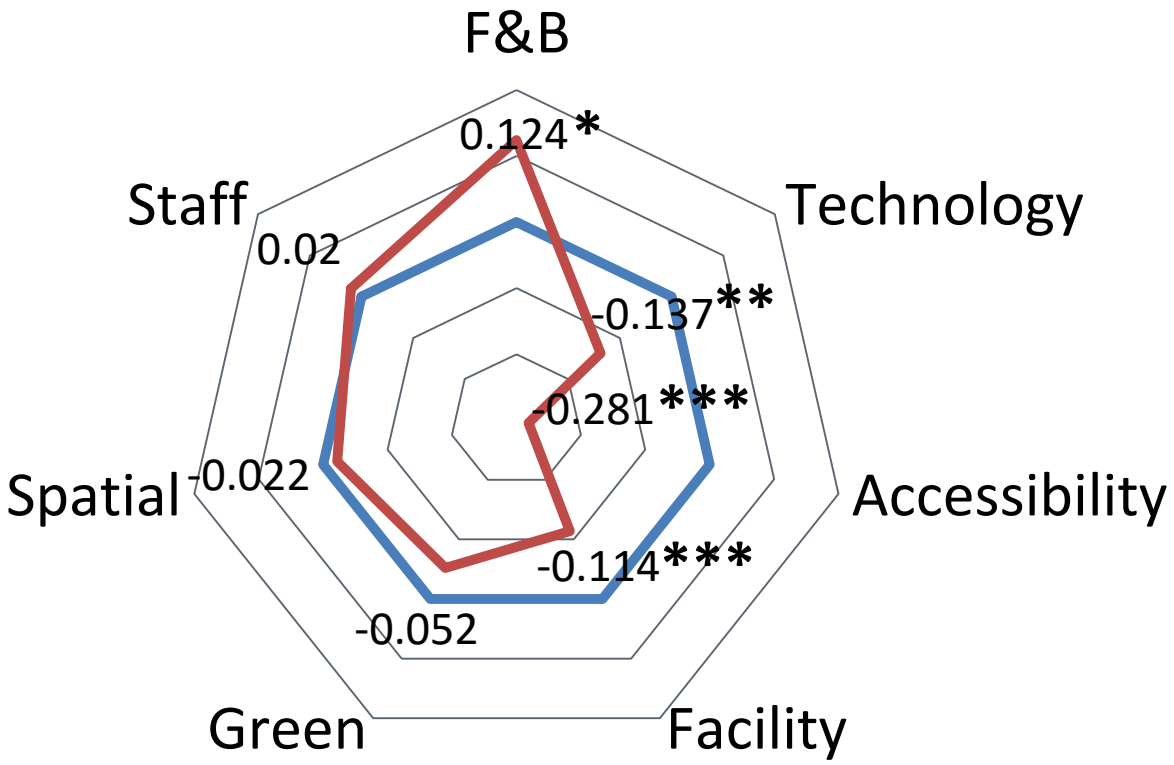
Factors	*Mean Difference*	*Standard Error*	*z value*	*p value*
Food & Beverage	.124*	.057	2.177	.029
Technology	-.137**	.040	-3.437	.001
Green	-.052	.063	- .819	.413
Spatial	-.022	.032	- .688	.491
Accessibility	-.281***	.033	- 8.451	<.001
Facility	-.114***	.030	-3.816	<.001
Staff	.020	.039	.516	.607

Note. The association conventions are the reference group. *p<.05, **p<.01, ***p<.001

Analysis

Latent Means Comparisons (Figure)

Latent mean differences across conventions and exhibitions



Conventions

Exhibitions

Note. The conventions are the reference group.

*p<.05, **p<.01, ***p<.001

Conclusion

- Theoretical Implications
  - Evaluating measurement invariance of perceived importance of service attributes between conventions and exhibitions
  - Prioritizing on-site service attributes in a convention center
- Practical Implications
  - Leading to new insights to improve convention services according to market segments
- Future Research
  - Different service expectations of
    - First-time vs. repeat visitors
    - Out-of-state vs. in-state visitors
  - Additional service factors

Thank You!

Questions?

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