

UTILIZING THE DISCRETE CHOICE EXPERIMENT APPROACH FOR DESIGNING A SOCIALLY EFFICIENT CULTURAL POLICY

The case of the municipal theatres in Warsaw

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Since the end of the Cold War and the victory of belief in the free market with its accompanying predominance of neo-liberal ideology, the public support the public theatres has been enjoying for decades has to come to appear as a less self-evident privilege than before. [...] Public subsidy can be neither an entitlement nor a renewable privilege; it should rather be a support extended in recognition of clear public benefit delivered by non-commercial theatre, conscious of its core responsibilities and specific remit.

D. Klaić, *Resetting the Stage. Public Theatre Between the Market and Democracy*, 2012

Agenda:

- introduction and context of the research
- methodology: DCE technique and data gathering
- econometric results
- cultural policy implications

Introduction

1. Financing culture from public budget.
2. Public cultural services - accessibility of culture for potential consumer (Hausner, 2014).
3. Consumer sovereignty: public support should not exceed the benefits society gains → non-market valuation.
4. Type of play – one of the most important features for viewers response.

The aim of the research is to investigate preferred ways of dividing public resources, thanks to which the society has the access to municipal theatres in Warsaw, in respect to the type of performances offered.

Case study

- municipal theatres in Warsaw:
 - 18 institutions: 1 milion theatregoers annually, 80 mln PLN of subsidy (65% of budget)
 - entertainment: Komedia, Kwadrat, ROMA, Rampa, Scena Prezentacje, Syrena
 - drama: Ateneum, Na Woli, Ochoty, Powszechny, Studio, Współczesny
 - children: Baj, Guliwer, Lalka
 - experimental: Dramatyczny, Nowy, TR
- 'the wind of change'



Non-market valuation of culture

- Stated preferences (vs. revealed preferences)

Respondents are asked to choose their most preferred alternative from the provided set. Alternatives represent various policy scenarios which differ in the policy characteristics (attributes) including different costs (monetary attribute) related to the policy implementation.

- Methods: contingent valuation, discrete choice experiment

contingent valuation of cultural goods and services: start in 80's, shift in 90's, first DCE in 1999

1. studies of cultural resources is but a small fraction of the whole bibliography of non-market valuation studies
2. studies of performing arts is but a small fraction of the bibliography of non-market valuation of cultural resources studies; e.g.:
 - Bille Hansen (1997): Royal Theatre in Copenhagen, intrinsic value [CVM]
 - Willis and Snawball (2009): National Arts Festival (South Africa) – live performance [DCE]
 - Grisolia and Willis (2011 and 2012): theatres in England [DCE]

Method: Discrete Choice Experiment

- general framework: consumer demand theory: a good or service described as a collection of attributes (Lancaster, 1966)
- Random Utility Model (McFadden, 1974) – foundation of preference modeling based on discrete choice data
- General Mixed Logit in WTP-space

Utility derived by consumer n choosing alternative j in choice task t (U_{ijt}):

$$U_{ijt} = \sigma_i \alpha_i \left(p_{ijt} + \frac{\beta_i'}{\alpha_i} \mathbf{x}_{ijt} \right) + e_{ijt} = \sigma_i \alpha_i (p_{ijt} + \mathbf{b}'_i \mathbf{x}_{ijt}) + e_{ijt}$$

U - the indirect utility function associated with option j of individual i in choice set t

α – parameter associated with price p

β – a vector of individual-specific taste parameters associated with marginal utilities of the non-price choice attributes (x)

b_i - a vector of implicit prices for the attributes

ε - random error, which captures unobserved characteristics of respondents

- consumer preference heterogeneity (Colbert et al., 1998, Grisolia and Willis, 2011 and Grisolia and Willis, 2012)
- WTP calculations

Study design and data gathering

- study design:

Situation 1	Variant A Status quo: continuation of current situation	Variant B
Entertainment theatres	no change	no change
Drama theatres	no change	ticket price: 5 PLN
Children theatres	no change	no change
Experimental theatres	no change	ticket price: 5 PLN
Annual cost	0 zł	20 PLN
<u>Your choice:</u>	<input type="checkbox"/>	<input type="checkbox"/>

- data gathering:

- professional firm (GfK Polonia), February and March 2014
- CAWI
- 1700 respondents (pilot: 100)
- 12 choice tasks per respondent

○ **hypothetical scenario:** tickets in municipal theatres cost only 5 PLN (1.25 EUR) – **broad accessibility in respect to price**

Econometrics: benefits' estimates (WTP)

Attribute	MNL	MXL	
	Coefficient	Mean	Std. Err. Coeff.
SQ	3.1811***	0.9826***	11,2635***
ENT	9.1489***	8.8409***	7,2893***
DRAMA	5.6676***	5.4821***	5,5614***
CHILD	3.2326***	3.0808***	4,0456***
EXP	2.8922***	2.5484***	4,9198***
COST	0.0854***	-1.1683***	1,1774***
<i>Model characteristics</i>			
LL	-12774.5477	-9122.2173	
Pseudo R2	0.0827	0.3449	
N	20400	20400	

Cultural policy implications:

1. benefits vs. costs of introducing the hypothetical program of discounted tickets

	Entertainment theaters	Drama theaters	Children theaters	Experimental theaters	Total
Benefits of introducing discounted ticket prices	12,173,171	7,548,384	4,242,072	3,508,995	27,472,622
Average ticket price	13.16	12.07	5.86	9.09	10.05
Additional subsidy per ticket required	11.91	10.82	4.61	7.84	8.80
Number of tickets sold – scenario I	548,956	197,095	133,000	38,112	917,163
Number of tickets sold – scenario II	1,423,184	490,134	408,698	104,544	2,426,560
Additional subsidy required – scenario I	6,539,685	2,132,386	613,327	298,681	9,584,079
Additional subsidy required – scenario II	16,954,324	5,302,797	1,884,702	819,308	24,961,131

Cultural policy implications:

2. current structure of subsidies

	WTP fraction:	fraction of viewers:	fraction of current subsidy
entertainment	44.31%	59.85%	22.41%
drama	27.48%	21.49%	43.24%
children	15.44%	14,50%	9.69%
experimental	12.77%	4.16%	24.66%

Conclusions and further research

Conclusions:

- to undertake the research in the unexploited area: cultural analysis of the optimality of public expenditures on culture, in particular: on performing arts
- people do value positively broader accessibility of theatre services...
- ...but cost-benefit relation does not support lowering prices in all theatres:
 - entertainment vs. the others: drama, children and experimental theatre

Further research

- methodology of surveying people about issues that relate to social distinction
- including division between use – and passive-use values in the reasoning and research
- finding the determinants of willingness to pay and correlates of heterogeneity with the use of available socio-demographic and attitudinal data

Thank you for your attention.

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