## Krzysztof Grzelec

# Marketing research in public transport in achieving sustainable urban mobility goals



## Marketing research in public transport in achieving sustainable urban mobility goals

## Krzysztof Grzelec

# Marketing research in public transport in achieving sustainable urban mobility goals

### Reviewer dr hab. Adam Przybyłowski, prof. UMG

Translation
Dean Paul Edmunds

Technical Editors Agnieszka Kołwzan Anna Roman

Cover and Title Pages Design Filip Sendal

Typesetting and Page Layout Mariusz Szewczyk

This book is financed by the Vice-Rector for Research at the University of Gdańsk as part of the Gdańsk Humanities Programme and by the Dean of the Faculty of Economics of University of Gdańsk

© Copyright by Uniwersytet Gdański Wydawnictwo Uniwersytetu Gdańskiego

The book is available in electronic format under a Creative Commons BY 4.0 licence.

ISBN 978-83-8206-788-0 (online)

Gdańsk University Press ul. Armii Krajowej 119/121, 81-824 Sopot tel. +48 58 523 11 37, tel. kom. +48 725 991 206 e-mail: wydawnictwo@ug.edu.pl wydawnictwo.ug.edu.pl

Online bookstore: wydawnictwo.ug.edu.pl/sklep/

Printed and bound by Zakład Poligrafii Uniwersytetu Gdańskiego ul. Armii Krajowej 119/121, 81-824 Sopot tel. +48 58 523 14 49

## **Table of contents**

Introduction	. 7
1. The nature and determinants of sustainable mobility management	
in urban areas	. 14
2. Public urban transport as a mobility service	. 22
3. Characteristics of the public urban transport market	. 36
4. Marketing research sources, scope, methods and tools in the context	
of public urban transport	. 49
5. The public urban transport services offer as the subject of marketing	
research	. 73
6. Use of selected marketing research results in shaping the public	
urban transport services offer	111
6.1. Economic and financial efficiency of market segments	111
6.1.1. Results from research on the number and structure	
of passengers	123
6.2. Changes in transport behaviour of residents and passengers .	128
6.2.1. Market segmentation in analysing changes	
in the mobility of residents	128
6.2.2. Changes in the modal split	140
6.3. Change of transport preferences of residents and passengers .	168
6.3.1. Basic descriptive statistics of the measured quantitative	
variables, along with a test of distribution normality	170
6.3.2. Analysis of the relationship of the study period with	
the number of indications of an attribute as the most	
important	170

### Table of contents

6.3.3.	The	e cc	rre	lat	ion	be	tw	eer	า th	e r	nun	nbe	er o	f at	ttrik	out	е				
	indi	cat	ion	IS 8	s tl	nе	mo	st i	mp	ort	an <sup>.</sup>	t ar	nd i	ts i	mp	ler	ner	ntat	tior	١.	171
6.3.4.	The	cc	rre	lat	ion	be	tw	eer	า th	e r	nun	nbe	er o	f in	dic	ati	ons	5			
	of a	ttri	but	es	as	the	e be	est-	- ar	nd v	now	st-	реі	for	mii	ng					175
6.3.5.	Ana	alys	is c	of t	he	cor	rel	atio	on (	of r	anl	kin	gs	in c	liffe	ere	nt y	/ea	rs		178
6.3.6.	Cha	ang	es	in a	ave	raç	ge t	trer	nds	fo	r at	trik	oute	es i	n tl	ne	gro	up	S		
	of tl	he	bes	st- a	anc	w	ors	t-p	erf	orn	ning	g									182
6.3.7.	Prin	ıcip	al	Со	mp	one	ent	Ar	naly	/sis	<u> </u>	PC.	Д								185
7. Conditions	for	the	im	ple	·me	enta	atio	on a	and	l us	se c	of n	าar	ket	ina	re	sea	arcl	า		
results in o				•											Ŭ						191
Conclusions	•				•				•		•			•						•	207
Appendix 1 .													•						•		210
Appendix 2 .		•	•	•	•					•		•	•	•					•	•	214
Appendix 3 .		•	•	•	•				•	•			•	•						•	217
Appendix 4.			•		•	•				•				•	•	•	•				221
Appendix 5 .	•								•		•										223
Appendix 6 .	•																				226
Appendix 7.	•																			•	229
References .	•																				235
List of figures	•																				258
List of tabels																					260