

Determining Drivers of Customer Loyalty for E-Commerce Air Travel

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Andrew Lipscomb, Eric May, Gregory Dell'Orto

Meagan Boyce, Michael Melcer



ROBERT H. SMITH
SCHOOL OF BUSINESS

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www.vliegtarieven.nl

WWW.VLIEGTARIEVEN.NL - Online vliegtickets boeken ! U komt er wél, met Vliegtarieven.nl ! vlieg - Microsoft Internet Explorer

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HOTELS AUTOHUUR PAKKETREIZEN AANBIEDINGEN BUSINESS UITLEG & INFO BOEK ONLINE
N-AMERIKA Z-AMERIKA EUROPA AZIE/PACIFIC


MONTYS
VLIEGTARIEVEN.NL

Check *alle* tarieven voor je gaat vliegen bij Vliegtarieven.nl !

VLIEGTICKETS AUTOHUUR HOTELS PAKKETREIZEN.NL CRUISETARIEVEN.NL CAMPERS FOTO ALBUM

Onze laatste deals:	
• Bangkok	€ 499
• New York	€ 210
• Oslo	€ 91
• Johannesburg	€ 379
• Hong Kong	€ 355
• Curacao	€ 399
• Tokyo	€ 403
• Startpakketten v.a.	€ 153
• Gratis Upgrade Aktie van Business naar First class met United	
[meer deals]	

Zoek en boek vliegtickets:	
• Van	<input type="text" value="Amsterdam"/>
• Naar	<input type="text"/> Klik
Boek vliegtickets online	
English version	
	

Informatie:	
• Vraag & Antwoord	
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• Vluchtrecensies	
• Reizigers over ons	
• Airline Awards	
• Laatste aanbiedingen	
[meer]	
	

Waarom boeken op Vliegtarieven.nl ?	
✓	Al sinds 1999 dé betrouwbare website voor al uw vliegtickets. Vele tevreden klanten gingen u voor.
✓	Eenvoudig online vliegtickets boeken met prijsgarantie .
✓	Uitstekende telefonische service

Altijd op de hoogte!	
Ontvang de beste deals per e-mail	
Voor naam:	<input type="text"/>

javascript:popWindow("http://www.vliegtarieven.nl/cgi-bin/sitehulp/faq.pl"); Internet



Problem

Explain what factors affect online customer's intention of returning to Vliegtarieven.nl to purchase airline tickets



Data Sample



- **Sample of Variables:**

Price Sensitivity

Trust

Ease of Use

Usefulness

Confirmation

Usage Attitude

Website Quality

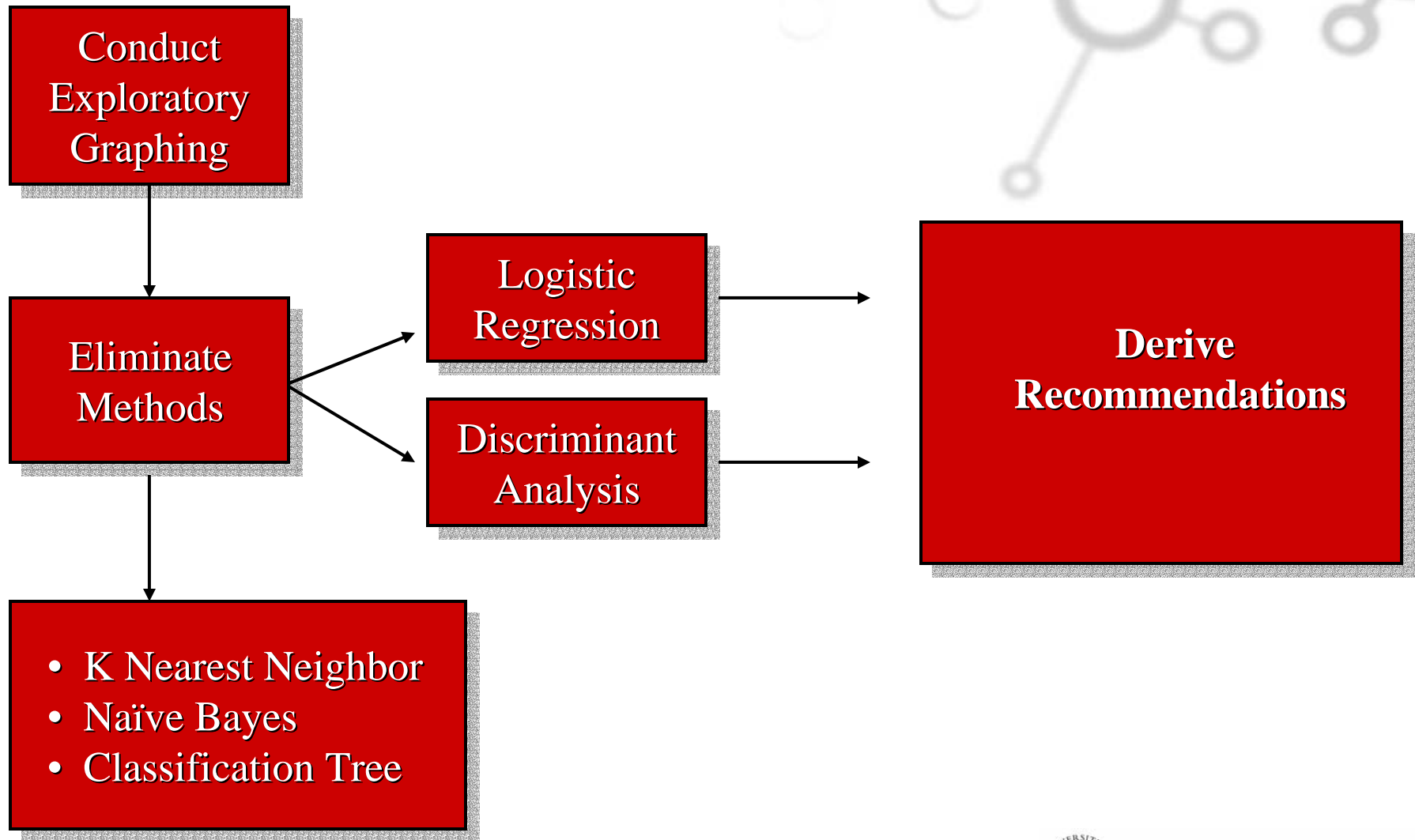
Satisfaction

- **Sample survey questions:**

- Trust: “I trust Vliegtarieven.nl to keep my personal information safe.”
- CI: “I want to continue using Vliegtarieven.nl rather than discontinue its use.”

Gender	Age	Education	Previous Customer	U	t01	t02	t03	t04	pr01	pr02	pr03	pr04	pr05	pu01	pu02	pu03	peou01	peou02	peou03	att01	att02	att03
1	35	6	1	#NULLI	4	4	4	4	3	3	4	3	4	4	4	4	4	3	4	3	3	2
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Modeling Effort



Exploratory Graphing

Scatter plot of Confirmation v. Satisfaction

Exhibit A: Continuous Intention by Construct

Construct:	% of High Scoring Cust with CI
Confirmation:	86.6%
Satisfaction	77.2%
Attitude:	75.0%
Trust:	74.7%
Website Quality:	74.5%
Perceived Risk:	70.9%
Perceived Usefulness:	70.9%
Perceived Ease of Use	68.8%
Loyalty Incentives:	63.1%
Price Sensitivity:	62.7%

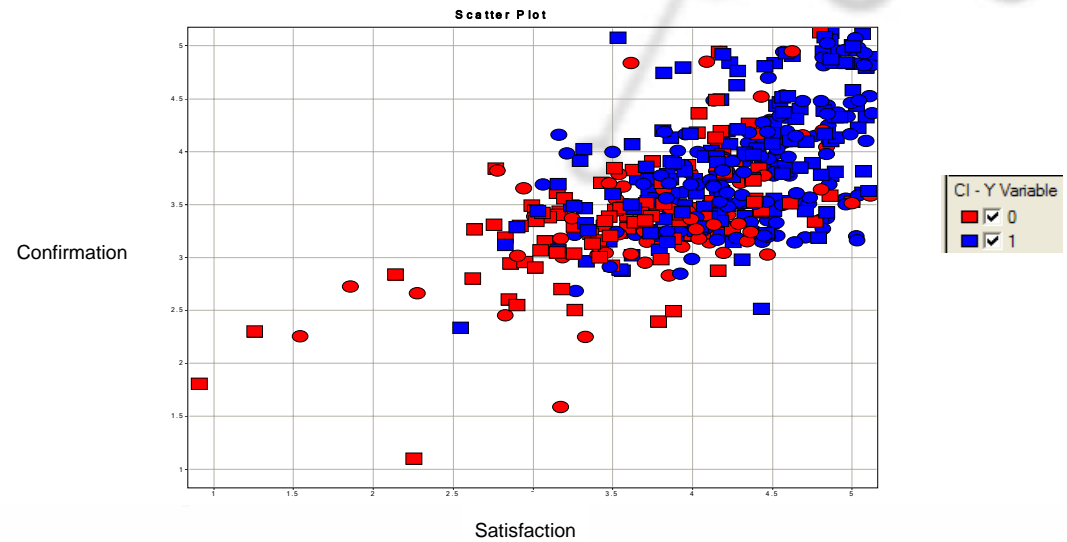
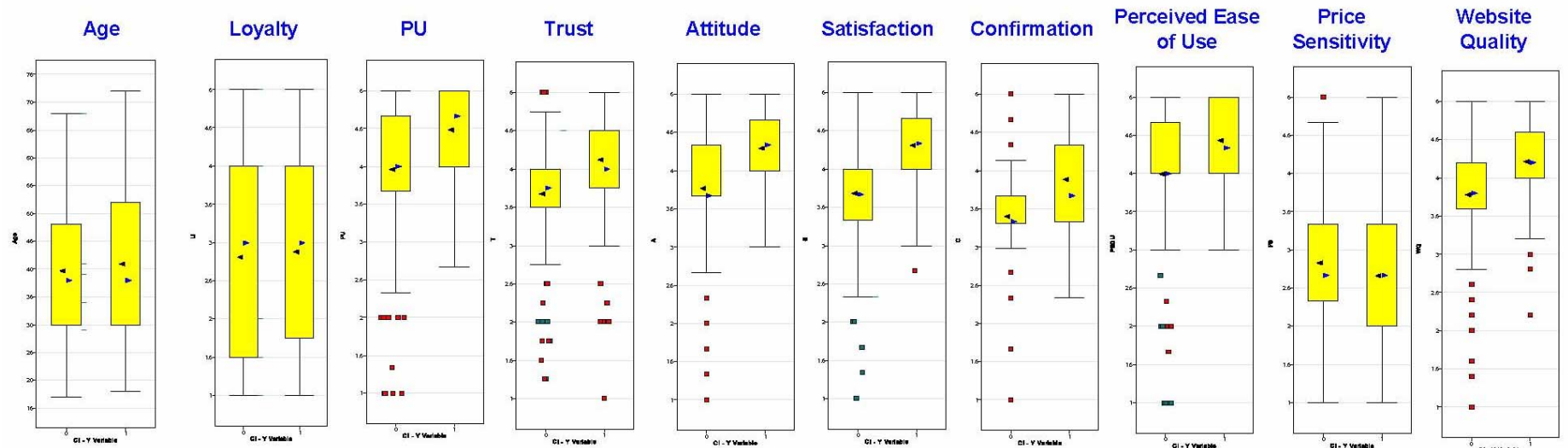


Exhibit C: Box plots of Constructs v. Continuance Intention



Discriminant Analysis

Classification Function

Variables	Classification Function	
	1	0
Constant	-80.83938599	-71.78081512
Gender	8.07855797	8.00797272
Age	0.27210945	0.27996424
Education	3.01591563	2.96648049
U	0.12498819	0.13830659
T	4.47566128	4.0058589
PR	7.87014151	7.74846077
PU	1.66207874	1.37538338
PEOU	0.91454273	1.17509532
A	1.68485057	1.10135317
WQ	6.77926207	6.21410751
C	2.85388422	2.11326861
LI	1.26896083	1.25428176
PS	6.48097706	6.67906618

Training Data scoring - Summary Report

Cut off Prob.Val. for Success (Updatable)	0.5
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Classification Confusion Matrix		
Actual Class	Predicted Class	
	1	0
1	222	85
0	52	113

Table 1: Most significant predictors based on coefficient differential (*Satisfaction* included)

Predictor	Differential
Satisfaction	1.16
Attitude toward usage	0.52
Perceived ease of use	0.44
Perceived website quality	0.37
Confirmation	0.36
Trust	0.31
Perceived usefulness	0.21
Perceived risk	0.14
Price sensitivity	0.13
Gender	0.05
Education	0.04
Number of uses (tickets)	0.01
Age	0.006
Loyalty incentives	0.004

Table 2: Most significant predictors based on coefficient differential (*Satisfaction* not included)

Predictor	Differential
Confirmation	0.74
Attitude toward usage	0.58
Perceived website quality	0.57
Trust	0.47
Perceived usefulness	0.29
Perceived ease of use	0.26
Price sensitivity	0.20
Perceived risk	0.12
Gender	0.07
Education	0.05
Loyalty incentives	0.01
Number of uses (tickets)	0.01
Age	0.008



Logistic Regression

Exhibit E - Logistic Regression (Constructs)

The Regression Model

Input variables	Coefficient	Std. Error	p-value	Odds
Constant term	-9.74323177	1.24046588	0	*
T	0.50535476	0.19296998	0.00882329	1.65757346
A	0.68097097	0.2273445	0.00274151	1.97579527
WQ	0.60803986	0.2720843	0.02543391	1.8368274
C	0.87225413	0.25146437	0.00052299	2.39229751

Training Data scoring - Summary Report

Cut off Prob.Val. for Success (Updatable)	0.5
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Classification Confusion Matrix		
	Predicted Class	
Actual Class	1	0
1	260	47
0	89	76

Error Report			
Class	# Cases	# Errors	% Error
1	307	47	15.31
0	165	89	53.94
Overall	472	136	28.81

Residual df	467
Residual Dev.	499.2094421
% Success in training data	65.04237288
# Iterations used	10
Multiple R-squared	0.1828852

Exhibit F - Logistic Regression (Variables)

The Regression Model

Input variables	Coefficient	Std. Error	p-value	Odds
Constant term	-9.11681461	1.11665201	0	*
t03	0.51501375	0.14681672	0.00045171	1.67366159
att03	0.32015297	0.12800458	0.01238063	1.37733841
wq01	0.40364301	0.14193757	0.00445781	1.49726939
wq03	0.33759972	0.17105721	0.04842643	1.40157938
c01	0.47507706	0.18220082	0.0091223	1.60813808
c02	0.5004397	0.17351848	0.0039257	1.64944637

Training Data scoring - Summary Report

Cut off Prob.Val. for Success (Updatable)	0.5
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Classification Confusion Matrix		
	Predicted Class	
Actual Class	1	0
1	267	40
0	80	85

Error Report			
Class	# Cases	# Errors	% Error
1	307	40	13.03
0	165	80	48.48
Overall	472	120	25.42

Residual df	465
Residual Dev.	489.3896484
% Success in training data	65.04237288
# Iterations used	10
Multiple R-squared	0.19895841



Findings and Recommendations

- Models do not explain much better than null deviance
- Focus on important two factors
 - Visually Appealing Website
 - Customer Service Available
 - Remaining variables not significant
 - Managerially meaningless (for example, “Satisfaction”)
 - Not statistically relevant
- Implement new survey
 - Conjoint Analysis: determine customer values
 - Continuance Intention: binary option





Questions?



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