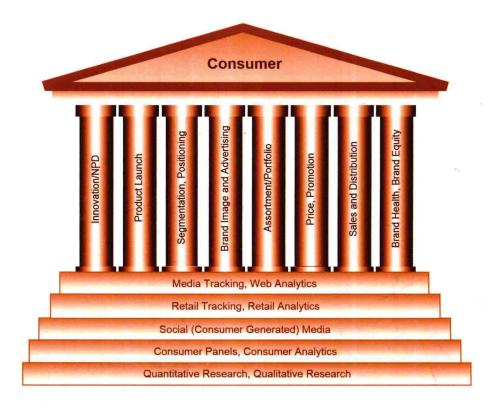
# Marketing Analytics

A Practitioner's Guide to Marketing Analytics and Research Methods



Ashok Charan



# Marketing Analytics

A Practitioner's Guide to Marketing Analytics and Research Methods



**Ashok Charan** 



Published by

World Scientific Publishing Co. Pte. Ltd.

5 Toh Tuck Link, Singapore 596224

USA office: 27 Warren Street, Suite 401-402, Hackensack, NJ 07601 UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

#### Library of Congress Cataloging-in-Publication Data

Charan, Ashok.

Marketing analytics: a practitioner's guide to marketing analytics and research methods / Ashok Charan, National University of Singapore.

pages cm

ISBN 978-981-4641-36-4 -- ISBN 978-981-4678-57-5 (pbk)

1. Marketing research--Data processing. 2. Quantitative research. I. Title.

HF5415.2.C3833 2015

658.8'3--dc23

2014041299

#### British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

Copyright © 2015 by World Scientific Publishing Co. Pte. Ltd.

All rights reserved. This book, or parts thereof, may not be reproduced in any form or by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system now known or to be invented, without written permission from the publisher.

For photocopying of material in this volume, please pay a copying fee through the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, USA. In this case permission to photocopy is not required from the publisher.

In-house Editor: Li Hongyan

Printed in Singapore

# Marketing Analytics

A Practitioner's Guide to Marketing Analytics and Research Methods In memory of my father

To my mother

With love and heartfelt gratitude

## Preface

The digital age has transformed the very nature of marketing. Armed with smartphones, tablets, PCs and smart TVs, consumers are increasingly hanging out on the internet. Cyberspace has changed the way they communicate, and the way they shop and buy. This fluid, decentralized and multidirectional medium is changing the way brands engage with consumers.

At the same time, technology and innovation, coupled with the explosion of business data, has fundamentally altered the manner we collect, process, analyse and disseminate market intelligence. The increased volume, variety and velocity of information enables marketers to respond with much greater speed, to changes in the marketplace. Market intelligence is timelier, less expensive, and more accurate and actionable.

Anchored in this age of transformations, *Marketing Analytics* is a practitioner's guide to marketing management in the 21st century. The text devotes considerable attention to the way market analytic techniques and market research processes are being refined and reengineered.

Given its focus on the methods adopted by practitioners, the book is tailored to the needs of marketing professionals. It is ideal too for business management students who wish to pursue careers in consumer marketing.

*Marketing Analytics* is structured into six parts — brand, consumer, product, advertising, price and promotion, and retail. Collectively the 22 chapters cover the key aspects of managing brands and categories.

Part I deals with brand, brand image and brand equity. It covers the analytic methods used for developing brand and marketing strategies.

Part II deals with qualitative and quantitative research methods, with emphasis on how these conventional research processes are embracing online platforms. It covers customer segmentation, customer

satisfaction and customer value management. It also addresses how consumer panels, consumer analytics and big data enhance our understanding of consumers and their buying behaviour.

Part III is centred on product. It deals with the entire new product development process from ideation, concept and product development to product launch. It covers the analytic methods and procedures that are deployed to screen ideas, concepts and products, at each phase of the NPD process.

Part IV is all about advertising. It covers the theories of advertising, how new media is transforming the way brands engage with consumers, digital marketing, and research methods for copy testing and advertising tracking.

Part V deals with price, promotion and market mix modelling. It covers a variety of pricing research methods, and techniques for promotions evaluation. The chapter Market Mix Modelling deals with statistical methods of analysis of historical data, to assess the impact of various marketing activities on sales.

The concluding part, retail, covers retail tracking, retail analytics, sales and distribution, and category management. It focusses on the use of metrics and analytic techniques to develop sales and distribution plans, and manage categories.

The text also includes seven case studies that have been crafted to facilitate a deeper understanding of the subject.

For more information on the topics covered in the various chapters and appendices, visit the book's website at:

http://bizfaculty.nus.edu/site/bizakc/MarketingAnalytics.

At this site you can access lecture presentations, and soft copies of tables and charts pertaining to the cases in the book. It also serves as the location for introducing fresh content and revisions to the text.

I wrote Marketing Analytics with the practitioner in mind. It is intended to impart a thorough understanding of research methods and analytic techniques, to guide you as you craft market strategies, and execute your day to day tasks. I hope that you enjoy reading it, and that it serves you well.

## Acknowledgement

My love for marketing grew at what was then a small newly created department at Hindustan Lever. There I had access to a wealth of information in an environment that was conducive to learning. It was in this department, and subsequently at Nielsen, that I acquired the knowledge that made it possible for me to write this book.

I remain indebted to several individuals during my years in the industry, and particularly my team at Nielsen for their support, and to the Nielsen Company for nurturing and rewarding me for 16 years.

Not many years back, academia was unknown territory, and I am immensely grateful to prof. S. Vishwanathan for persuading and encouraging me to teach. A close friend, in some respects, Vish understood me better than I did myself, and he took me down a path that led me to where I am today.

I am greatly indebted to Mr. Chua Hong Koon from World Scientific Publishing, for his guidance and support. I also thank his colleague, Ms. Li Hongyan, for her considerable assistance and patience in editing this text.

For most of my life my mother and father have been my source of strength and stability. It is their unconditional love, sacrifice and faith that gave me an immense advantage in life, and it is to them that I dedicate this book.

## Author



#### Ashok Charan

Associate Professor, NUS Business School, National University of Singapore (ashokcharan.com)

Ashok is the creator of Destiny©, an advanced FMCG business simulator, which he uses for teaching marketing courses to business students and marketing practitioners.

A marketing veteran, he has over 25 years of industry experience in general management, corporate planning, business development, market research and marketing. Prior to joining the NUS Business School, Ashok worked with Nielsen and Unilever. At Nielsen, he assumed a number of roles including Managing Director for Singapore, and Regional Area Client Director – Asia Pacific. His experience spans both business and consumer marketing, and he remains active in consulting in the areas of market research, analytics and data integration.

Ashok is an engineering graduate from the Indian Institute of Technology, Delhi, and a post-graduate in business management (PGDM) from the Indian Institute of Management, Calcutta.

## Contents

Preface vii Acknowledgement ix Author xi

#### PARTI BRAND

#### Chapter 1 Brand and Brand Image 3

Pink Diamonds? 4

Lesson from the Summer of 1985 6

Brand 7

Positioning 9

Brand Image Tracking 12

**Image Profiling 14** 

Perceptual Mapping 19

#### Chapter 2 Brand Equity 23

ZEN versus iPod 24

Benefits of Brand Equity 26

The Loyalty Pyramid 27

Net Promoter Index and Net Advocacy Index 33

Brand Equity Models 34

Computing the Brand Equity Index 36

Data Interpretation and Analysis 37

Drivers of Brand Equity 39

Brand Image 43

Case Inulas 46

Overview — Brand Equity Model 48

Case I Shopper Trends — Food and Grocery Shopping in Singapore 51

#### PART II CONSUMER

#### Chapter 3 Segmentation 69

Schizophrenic Consumers 69

Need-States 71

Segmentation 71

A Priori Segmentation Methods 75

Post hoc Segmentation Methods 77

Segmentation Analysis 78

Targeting 83

#### Chapter 4 Qualitative Research 85

Difference between Qual and Quant 86

Consumer Generated Media and Conventional Market Research 88

Applications of Qualitative Research 92

**Exploratory 92** 

Explanatory or Diagnostic 93

Evaluative 93

Qual with Quant Research 94

Product Development 94

Creative Development 95

Motivational Research, Semiotics, Usage & Attitude 95

Packaging Development 97

The Qualitative Advantage 97

Watchouts 97

Modes of Data Collection 99

Group Discussions 99

Interviews 100

Observation 101

Online Qual 102

Research Design and Preparation 109

Projective and Enabling Techniques 111

Word Association 113

Third Party Questioning 113

Sentence Completion 114

Personification 114

Brand Mapping 115

Drawing and Collage 115

**Bubble Drawings 116** 

Role-Playing 116

Laddering 117

Body Language 118

Guidelines for Moderating Groups 121

Analysis and Interpretation 122

#### Chapter 5 Quantitative Research 125

Problem Definition 126

Research Design 127

Questionnaire Design 127

Information Needs 130

Sampling 134

Data Collection 135

The Analysis Process 141

Interpretation and Recommendation 142

#### Chapter 6 Customer Satisfaction and Customer Value 147

Impact of Retention and Attrition 147

Evolution of Customer Satisfaction 149

Customer Satisfaction and Employee Satisfaction 150

Customer Loyalty 151

Customer Satisfaction Research 153

Transaction Survey 155

Relationship Survey 158

Drivers of Customer Loyalty and Satisfaction 160

Interpretation and Recommendation 164

The Kano Model 167

Customer Value 173

Customers' Purchasing Philosophy 174

Value-in-Use Analysis 175

Value Assessment 177

Overview — Customer Value Management 179

#### Chapter 7 Consumer Panels 181

Background on Consumer Panels 182

Research Methodology 184

Width and Depth of Purchase 185

Buyer Groups 188

Profile Analysis 193

Brand Loyalty (Behavioural) 194

Trial and Repeat Purchase 195

Overlap 197

Basket 198

Gain-loss 200

Case Example — Johnson's Body Care 204

#### Chapter 8 Consumer Analytics and Big Data 209

Big Data 212

Data Management Tools and Technologies 212

Consumer Analytic Techniques 218

Machine Learning Techniques 218

Data Mining 220

Sourcing from Social Media 222

Optimization/Analysis Techniques 223

Visualization 224

Cognitive Systems — the 3rd Age of Computing 224

Benefits 226

People 227

Applications 228

Case II Vizag 233

Case III Hectomalt 243

#### PART III PRODUCT

#### Chapter 9 New Product Development 267

Change 268

Innovation 270

New Product Development Process 272

Ideation 273

Knowledge Immersion 274

Consumer Immersion 276

Generating Insights 277

Generating Ideas 280

Concept Development 289

Product Development 290

Product Launch 292

#### Chapter 10 Product Design 295

IBM 360 295

Sensory Research 298

The Kano Model and Conjoint Analysis 301

Conjoint Analysis 302

House of Quality 317

#### Chapter 11 Product Validation 321

Moments of Truth 323

Launch Validation Methods 325

Simulated Test Markets 328

BASES 330

Controlled Store Test 336

Product Launch Evaluation 340

Parfitt-Collins Model 341

The Bass Diffusion Model 346

Case IV Hecto Grow 353

#### PART IV ADVERTISING

#### Chapter 12 How Advertising Works 371

Tradition of Great Advertising 371

Advertising through the Ages 373

Advertising Mechanisms 377

Salience 378

Persuasion 380

Likeability 381

Symbolism 381

Relationship and Involvement 382

**Emotion 383** 

Measurement Issues 384

#### Chapter 13 New Media 387

The Old Order Changeth 387

Uprisings 388

Lessons for Marketers 389

New Media 390

New Rules, New Perspectives 392

Levelling the Marketing Playing Field 392

The Advent of Co-creation 392

Permission Marketing 394

Riding the Long Tail 394

Inbound and Outbound Marketing 395

Turning Point for Television 396

Consumer Trends — Media Consumption 397

Online Video Distribution Trends 401

Interactive Television 402

Internet Basics 404

#### Chapter 14 Digital Marketing 407

What Works Online 408

Building Online Assets 411

Websites 412

Blogs 412

Internet Forums 412

Social Media 413

Content is King 413

Personalization 415

Advertising on the Net 416

Challenge Facing Low Involvement Categories 418

Challenge of Reaching the Masses 419

Digital Advertising Formats 423

Search 428

Search Engine Optimization 428

Web Analytics 432

Web Traffic Data 432

Web Intelligence 434

Controlled Website Tests 435

#### Chapter 15 Advertising Research 437

Copy Testing (Pre-Testing) 439

Testing Advertising Online 440

Advertising Tracking (Post-Testing) 441

Gross Rating Points 441

Audience Measurement 442

Continuous Interviewing versus Dipsticks 442

Tracking Questionnaire 443

Advertising Research Imperatives 444

Branded Memorability 445

Persuasion 447

Uniqueness 449

Likeability 450

Image and Symbolism 450

Involvement 451

Emotion 451

Communication 454

Awareness Index Model 455

#### PART V PRICE AND PROMOTION

#### Chapter 16 Price 463

At What Price Should We Sell Our Product? 463

Basics of Pricing Research 465

Importance of Realism in Pricing Research 466

Price Elasticity of Demand 466

Factors Affecting Consumers' Sensitivity to Price 467

Pricing Research Methods 469

Gabor-Granger 471

Van Westendorp Price Sensitivity Meter 473

Brand Price Trade-off 475

Conjoint Analysis 478

Discrete Choice Modelling 479

Case Example — Rationalizing Brand 481

#### Chapter 17 Promotion 483

In-Store Promotion and Media 484

Types of Promotions 485

Trade Promotion 486

Consumer Promotion 488

The Need to Rationalize Promotions 488

Promotion-Commotion-Demotion 489

Promotion Evaluation — Metrics 490

Basic Assessment of Sales Promotions 491

Market Modelling 492

#### Chapter 18 Market Mix Modelling 495

Design Considerations 496

Sales Response Function 497

Interaction Effects 500

Competitive Effects and Market Share Models 502

Dynamic Effects 504

Long Term Effect (Advertising) 510