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EXPERIMENTAL METHODS IN MARKETING

Learning about customers

John Roberts
University of New South Wales
and London Business School

Marketing and the Measurement Imperative

Marketing is the understanding of the customer's needs and the harnessing of the organization's resources to meet those needs, at a profit

Bjorn Shorte

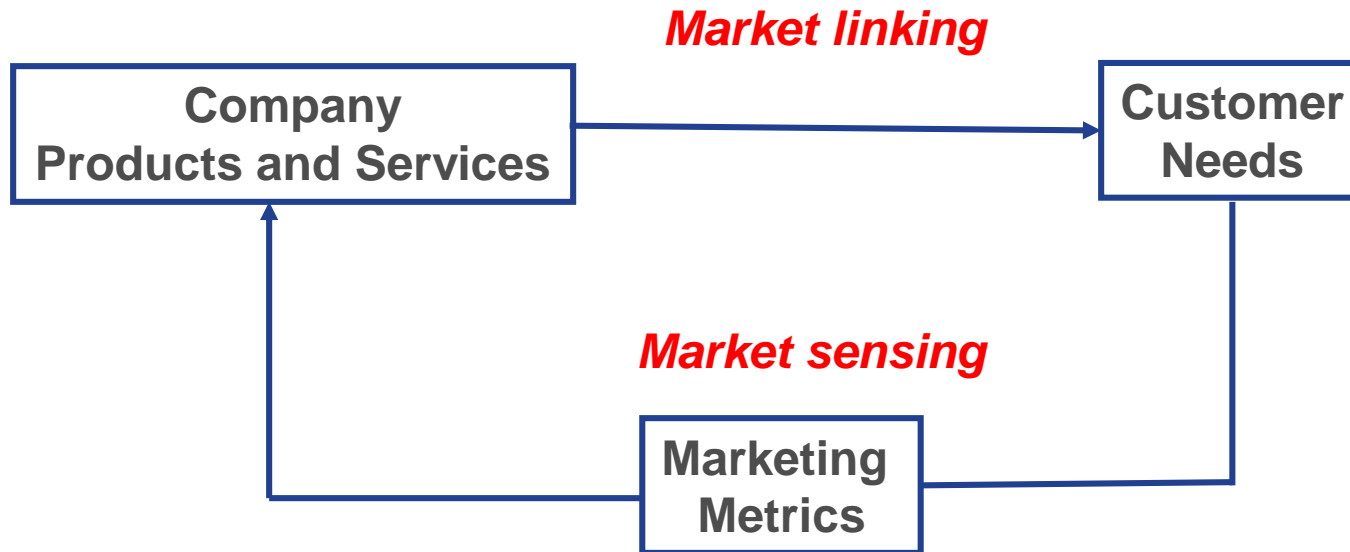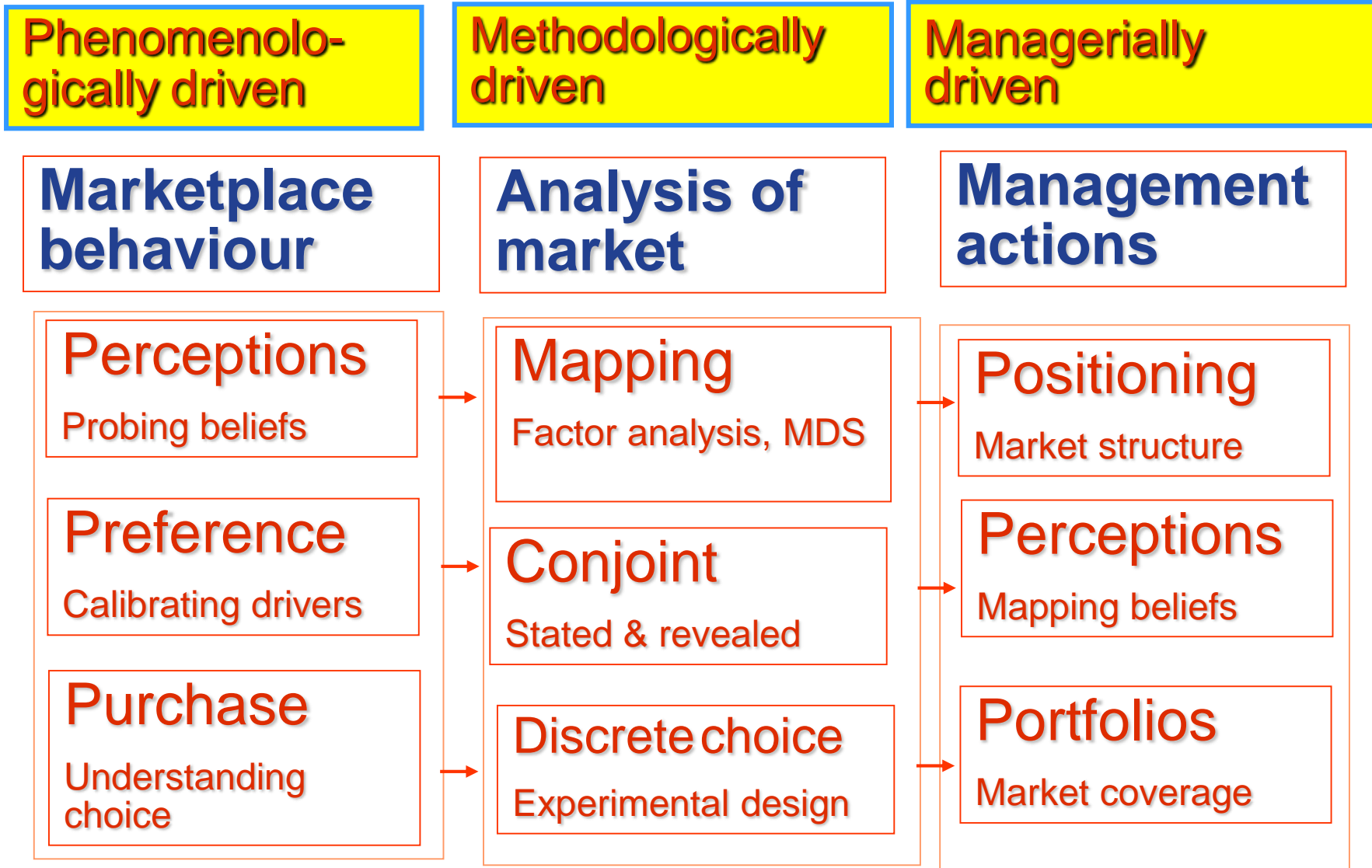| Company Products and Services	→	Customer Needs

The Measurement Imperative

Marketing is the understanding of the customer's needs and the harnessing of the organization's resources to meet those needs, at a profit

Market linking

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┌─────────────────────┐                    ┌──────────────┐
│     Company         │ ────────────────►  │  Customer    │
│ Products and Services│                    │   Needs      │
└─────────────────────┘                    └──────────────┘
          ▲                                        │
          │            *Market sensing*            │
          │      ┌──────────────┐                  │
          └──────│  Marketing   │──────────────────┘
                 │   Metrics    │
                 └──────────────┘
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Marketing metrics provide focus to our marketing actions. They are the sights on our rifle for targeting the customer. It is not that we won't hit anything without the sights on the rifle. It's just that our chances are reduced.

The nature of research in marketing

Phenomenolo-gically driven	Methodologically driven	Managerially driven

Marketplace behaviour	**Analysis of market**	**Management actions**

Perceptions Probing beliefs	→	Mapping Factor analysis, MDS	→	Positioning Market structure
Preference Calibrating drivers	→	Conjoint Stated & revealed	→	Perceptions Mapping beliefs
Purchase Understanding choice	→	Discrete choice Experimental design	→	Portfolios Market coverage

Types of Market Research

(LOUIS PSIHOYOS NY)

Figure 11-4. Without a pre-measurement, it's difficult to identify the effect of the experimental treatment. At this Cincinnati research facility, each subject's natural body scent is being judged prior to testing of a deodorant formulation.

Methods of learning

Units of analysis

Population   (Aggregate)

Groups of   (Segmentation)
consumers

Individuals (Disaggregate)

Understand sources of heterogeneity for market view

Drill down for individual differences

Methods of learning

Units of analysis		Examples
Population	(Aggregate)	Bass diffusion model
Groups of consumers	(Segmentation)	Urban's Sprinter model
Individuals	(Disaggregate)	Belief importance model (utility)

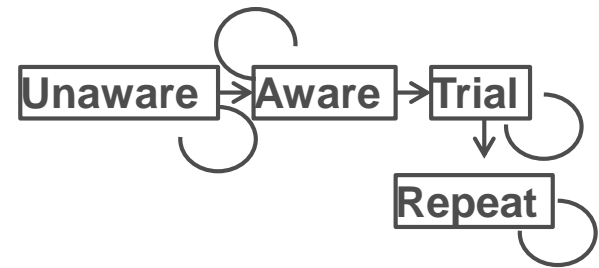# Methods of learning (contd.)

Units of analysis	Examples	Diagram
Population	Bass	Sales / Time (S-curve)
Groups of consumers	Sprinter	Unaware → Aware → Trial → Repeat
Individuals	Utility	$U_{ij} = \sum_k w_{ik} y_{ijk}$
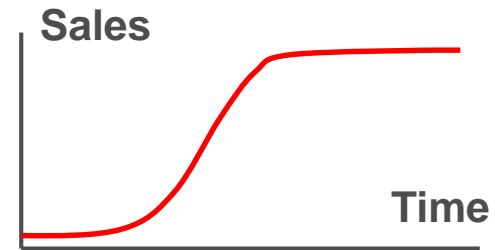
Methods of learning (contd.)

Units of analysis	Examples	Data
Population	Bass	Marketplace Historical
Groups of consumers	Sprinter	Secondary (ABS, Commerce)
Individuals	Utility	Market research Laboratory

What do we learn?

(1) What Subjects (Ss):   (2) Ss' reaction to

stimuli

- Think
- Feel   Test: O_1 O_2 X O_3 O_4
- Like   Control: O_1 O_2 O_3 O_4
- Do

(and the relations   (the role of stimuli in

between them)   evaluation updating)

References

Experimental design
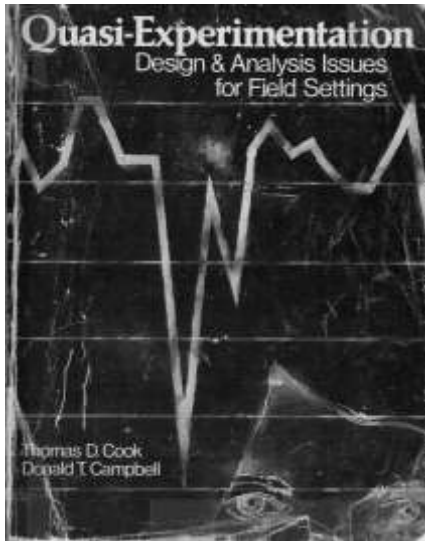
Marketing

Cook and Campbell Quasi-Experimentation 1979
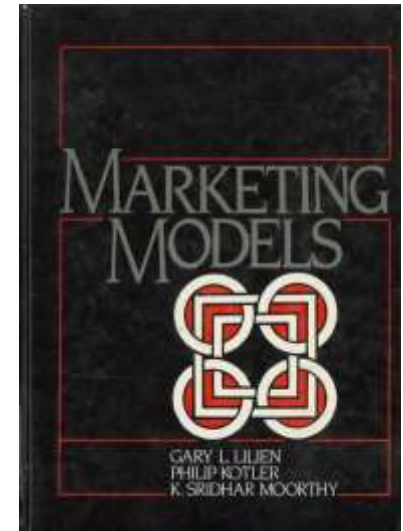
Shadish, Cook and Campbell Experimental and Quasi-Experimental Designs 2002

Eliashberg and Lilien Marketing 1993

Lilien, Kotler and Moorthy Marketing Models 1992

What's fun in experimental design and lab work?

Probably, not fourth order interaction effects!

I like:

- Dynamic models (Chylinski et al. *Mkt Sc* 2011)
- Contingent models (Roberts & Lattin *JMR* 1991)
- Gaps in the market (Kayande et al. *Mkt Sc* 2011)
- Data fusion models (Danaher et al. *Mkt Sc* 2013)

Let me share with you a model using multiple data sources

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REPOSITIONING KMART THIS TIME WITH FEELING

2014 Marketing Science Practice Prize Final

John Roberts, Peter Danaher, Rohan Raghavan, Ken Roberts

A TALE OF TWO HALVES

The management application and the modelling innovation

Management Actions

The Problem: Kmart Australia was unprofitable, had poor perceptions, and was dominated by its major competitor, BigW.

A redesign of the store and move to EDLP had failed to change this situation.

How could management develop and communicate a compelling value proposition?

Modeling Choice

Fact 1: The following articles have as their first sentence a statement of the importance of emotions in choice: Andrade (2005), Angie *et al.* (2011), Avnet *et al.* (2012), Burke & Edell (1989), Cohen *et al.* (2008), Dube *et al.* (1996), Herr *et al.* (2012), Johnson & Stewart (2010), King & Janiszewski (2011), Ladhari (2007), Laros & Steenkamp (2005), Mellers et al. (1999), Pham (1998), Richins (1997), Russell (2003), Ruth (2001), Williams 2014)

Fact 2: Google "Choice models emotions" and one finds no relevant tier 1 article

Background

- Kmart bought by Wesfarmers
- Kmart had 190 stores,
- Baskets average $ 30, 4 items
- Inter-purchase time 8 weeks
- Annual store visits: 550 million

…. but no profit or growth in ten years

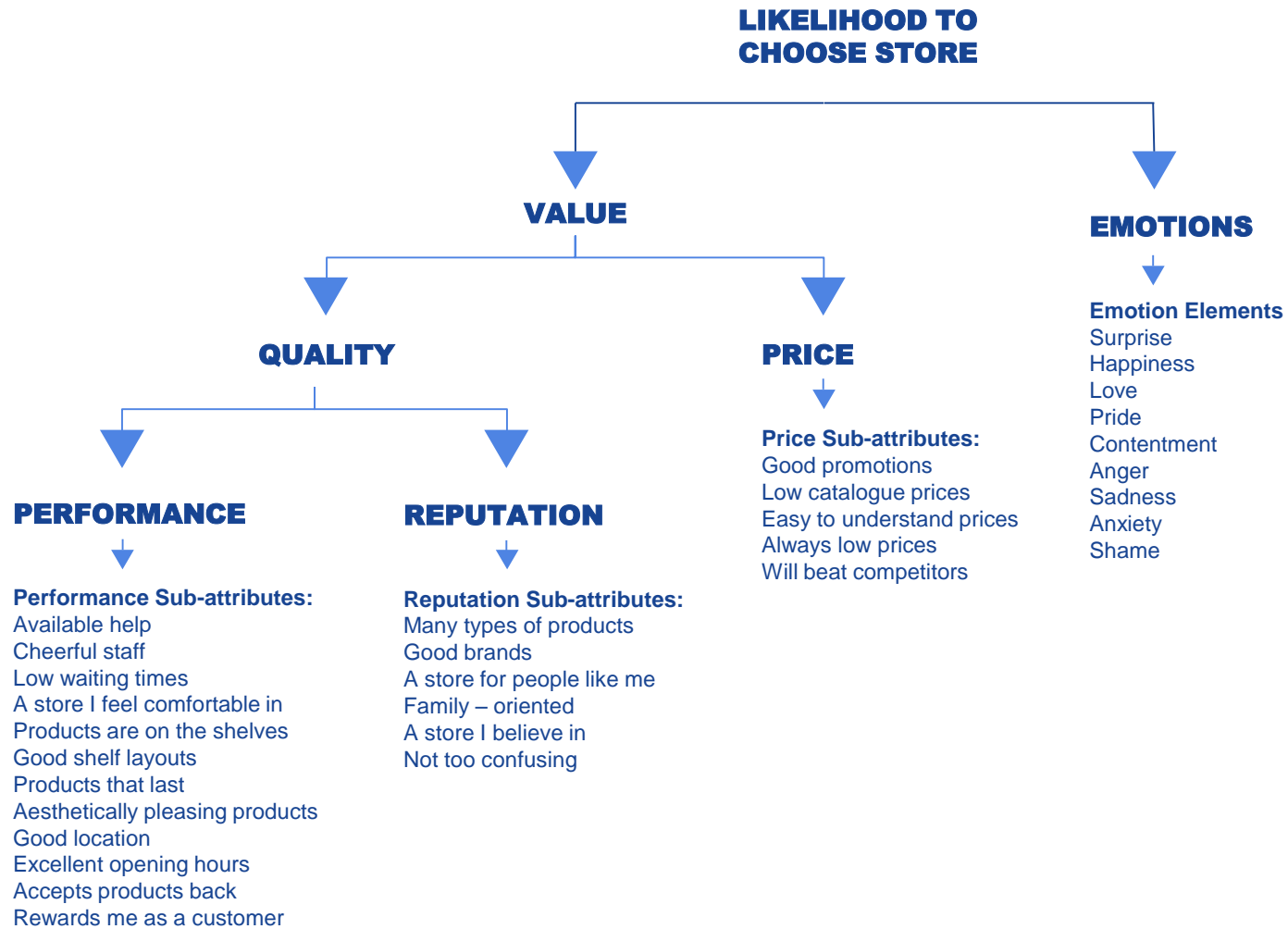# SHOULD WE CLOSE THE BUSINESS?

THE BUSINESS RE-ENGINEERING

- Kmart pruned the product range
- Moved to $ x.00 price points
- Removed the dump bins
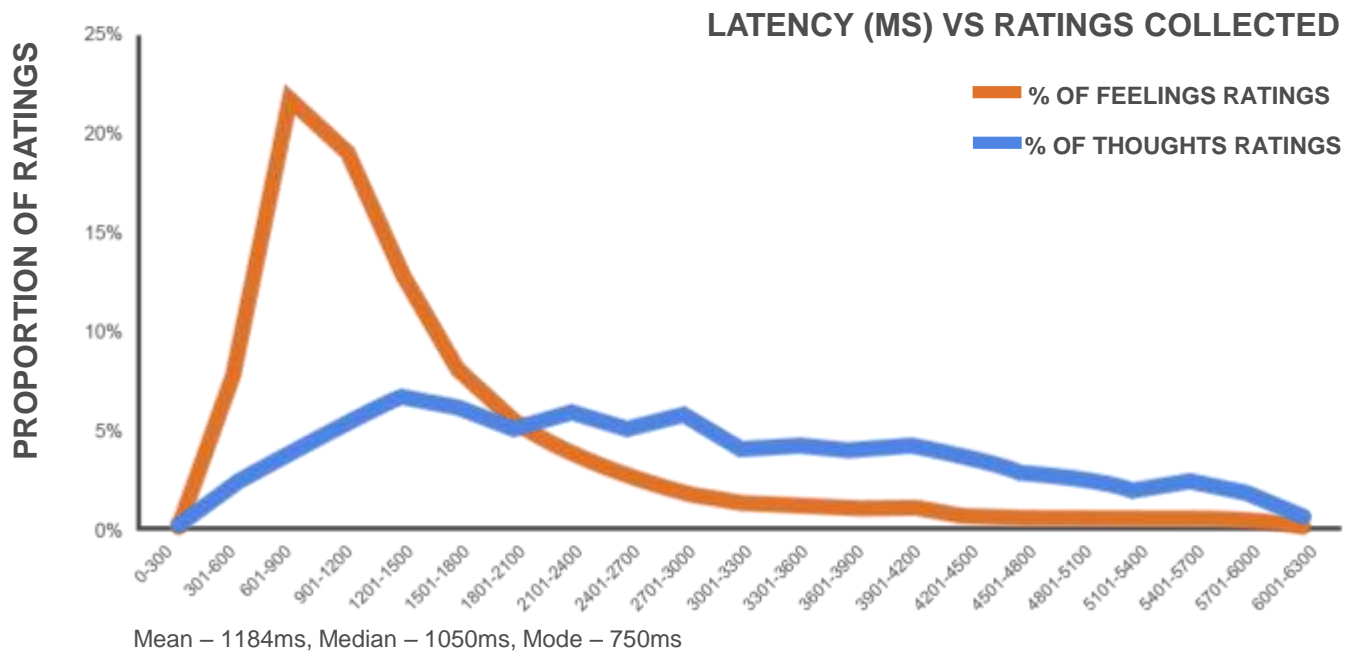- Cleaned up the stores
- Transitioned to EDLP
- Lowered prices

BUILD AND THEY WILL COME

MARKETING SCIENCE

Modelling store choice

# Conceptual Model of Consumer Choice for Discount Department Stores

LIKELIHOOD TO CHOOSE STORE

VALUE

EMOTIONS

Emotion Elements
Surprise
Happiness
Love
Pride
Contentment
Anger
Sadness
Anxiety
Shame

QUALITY

PRICE

Price Sub-attributes:
Good promotions
Low catalogue prices
Easy to understand prices
Always low prices
Will beat competitors

PERFORMANCE

REPUTATION

Performance Sub-attributes:
Available help
Cheerful staff
Low waiting times
A store I feel comfortable in
Products are on the shelves
Good shelf layouts
Products that last
Aesthetically pleasing products
Good location
Excellent opening hours
Accepts products back
Rewards me as a customer

Reputation Sub-attributes:
Many types of products
Good brands
A store for people like me
Family – oriented
A store I believe in
Not too confusing

LATENCY (MS) VS RATINGS COLLECTED

% OF FEELINGS RATINGS
% OF THOUGHTS RATINGS

PROPORTION OF RATINGS

25%
20%
15%
10%
5%
0%

0-300, 301-600, 601-900, 901-1200, 1201-1500, 1501-1800, 1801-2100, 2101-2400, 2401-2700, 2701-3000, 3001-3300, 3301-3600, 3601-3900, 3901-4200, 4201-4500, 4501-4800, 4801-5100, 5101-5400, 5401-5700, 5701-6000, 6001-6300

Mean – 1184ms, Median – 1050ms, Mode – 750ms

CONVERGENT AND DISCRIMINANT VALIDITY

FACTORS

FEELINGS	1	2	3	4	5	6	7	8	9
1 SURPISE	**0.96**	0.10	0.12	0.16	-0.05	0.11	0.02	-0.09	0.04
2 HAPPINESS	0.10	**0.95**	0.13	0.04	0.07	0.13	0.17	0.05	0.11
3 LOVE	0.11	0.13	**0.97**	0.10	0.02	0.12	0.04	0.03	0.07
4 PRIDE	0.16	0.04	0.10	**0.97**	-0.06	0.13	0.03	-0.09	0.02
5 CONTENTMENT	-0.05	0.06	0.02	-0.06	**0.98**	-0.05	0.07	0.13	0.06
6 ANGER	0.11	0.13	0.13	0.13	-0.05	**0.96**	-0.05	-0.07	0.06
7 SADNESS	0.02	0.16	0.04	0.03	0.07	-0.05	**0.97**	0.15	0.06
8 ANXIETY	-0.09	0.05	0.03	-0.09	0.13	-0.07	0.15	**0.96**	0.07
9 SHAME	0.03	0.10	0.07	0.02	0.06	0.05	0.06	0.07	**0.98**

THE BASELINE

DDS BASELINE EMOTIONS READ
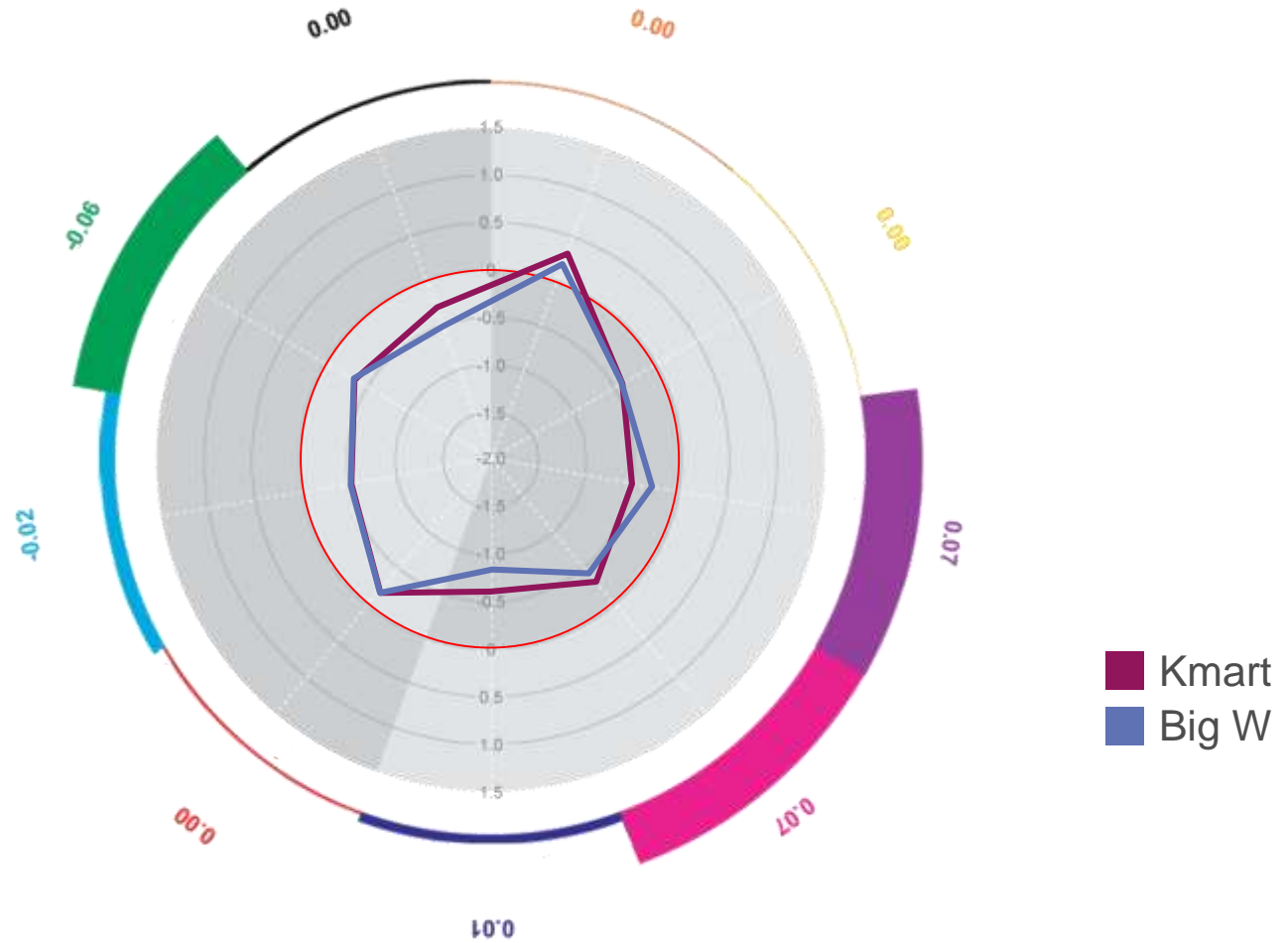
*Non-significant drivers

TRANSLATION TO CREATIVE

EMOTIONS ACTIVATION PROCESS

THE CREATIVE · THE CLIENT · THE RESEARCHERS

PRE-WORKSHOP ▶ CONTEXT & BOUNDARIES ▶ EMOTIONAL IDEATION ▶ DRAFT CONTENT

PRE-WORKSHOP

Target emotion identified: PRIDE

Pre-workshop ideation around emotional themes for PRIDE

CONTEXT & BOUNDARIES

Forethought emotions expert gives background on PRIDE

Kmart marketing shares Brand Strategy & Positioning

PRIDE defined as VALUED ACHIEVEMENT and GROUP MEMBERSHIP

Kmart positioning is MAKING LOW PRICES IRRESISTABLE

EMOTIONAL IDEATION

Syndicate ideation on emotional themes & communication vehicles

Optimal Pride territories generated:

Mums making smart, thrifty choices at Kmart to manage the budget (Achievement Pride)

A collective experience of savings (Group Membership)

DRAFT CONTENT

Talent, imagery, story line, tone

Genuine, relatable narrative. Real mums.
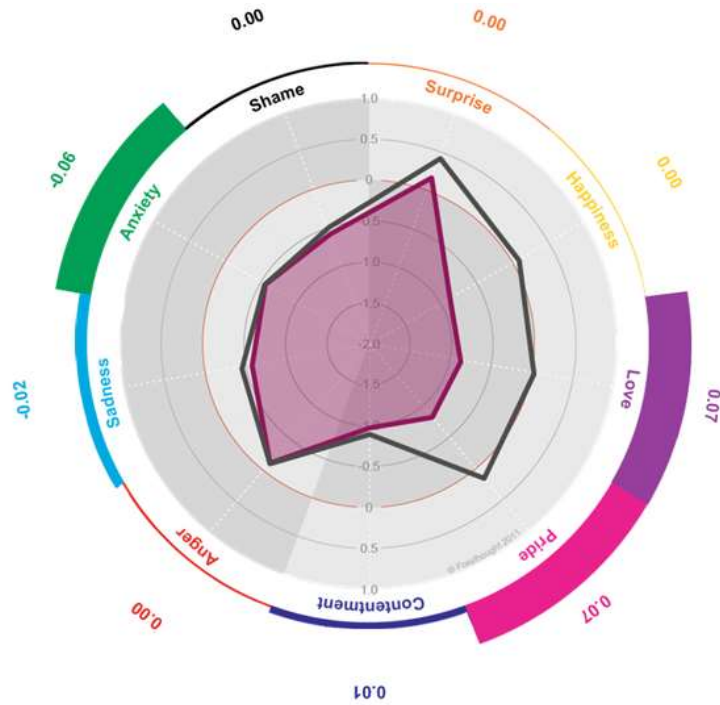
JAMIE MACKAY
Executive Planning Director
BWM

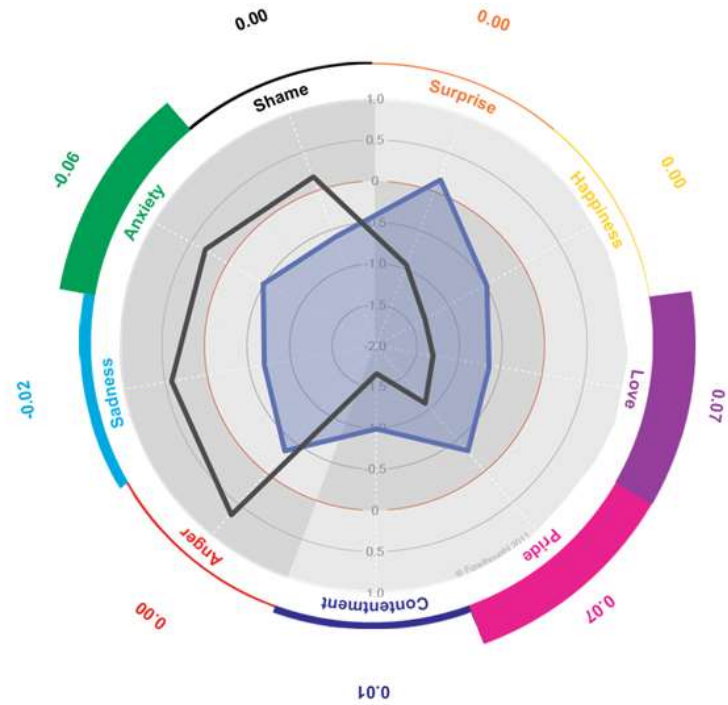On July 11, Kmart invited 1,000 mums

Kmart

Big W

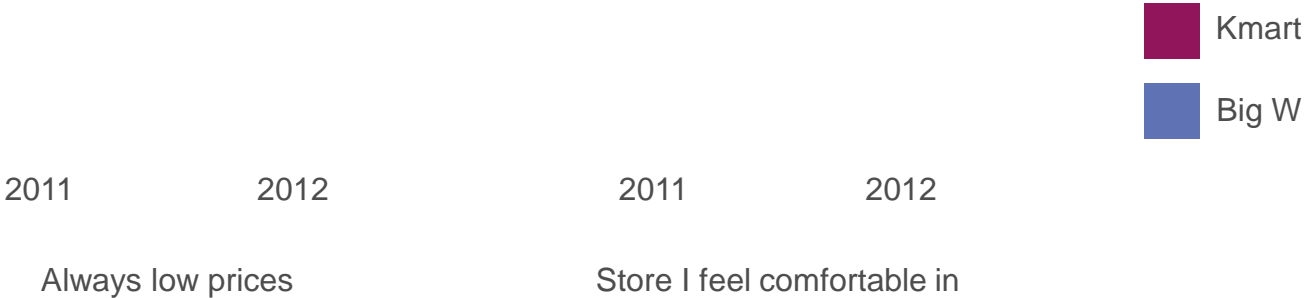■ Kmart Brand (n = 222)
■ Kmart (TVC) (n = 223)

■ Big W Brand (Stream 1) (n = 224)
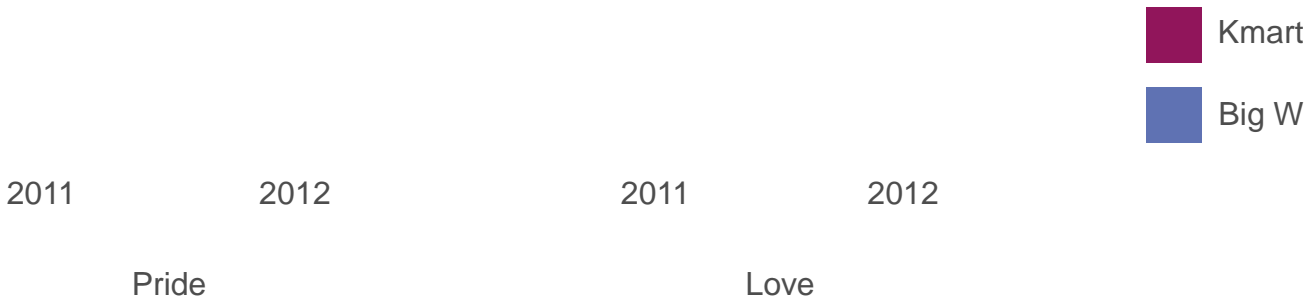■ Big W (TVC) (n = 228)

BUSINESS OUTCOMES

RATIONAL

Kmart

Big W

| 2011 | 2012 | 2011 | 2012 |

Always low prices

Store I feel comfortable in
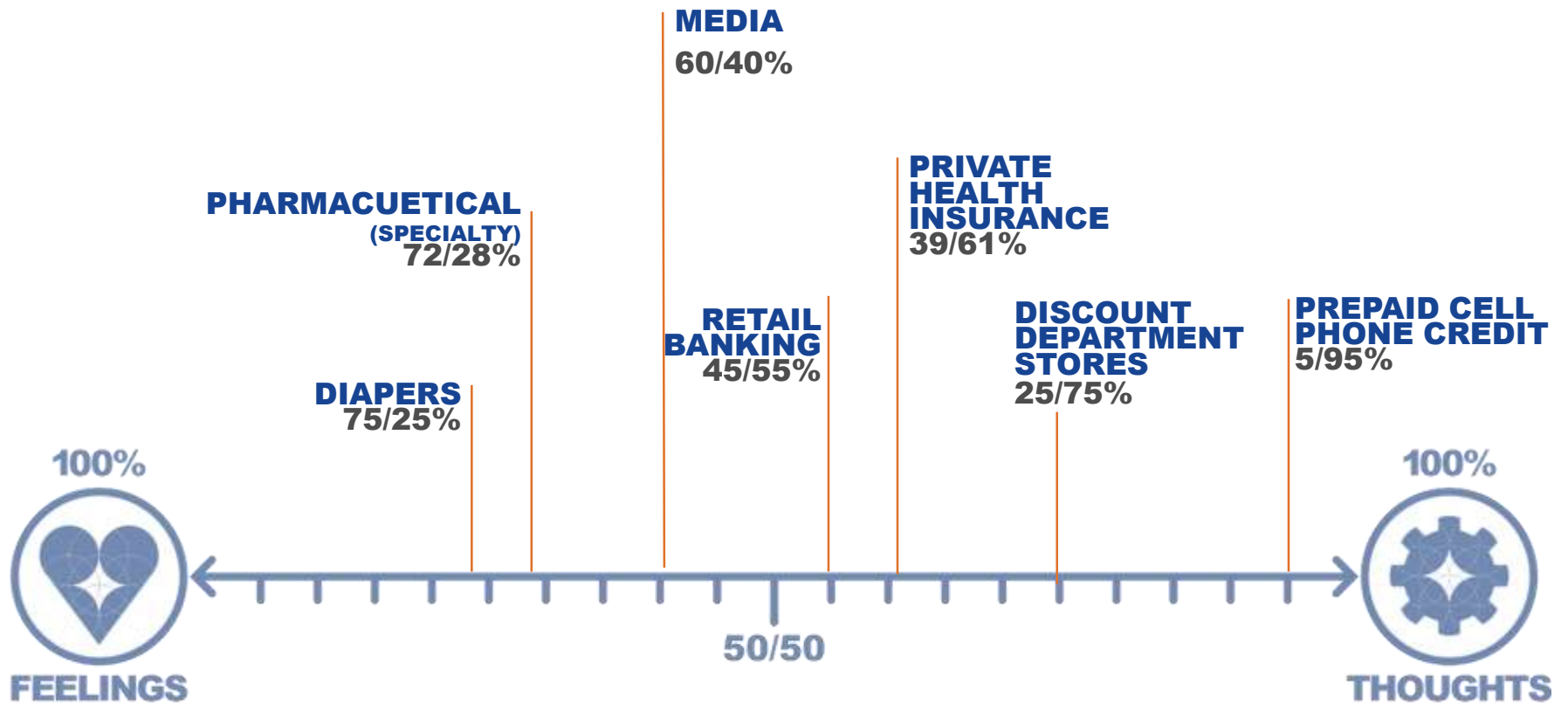
Aggregate level results

	June 2011 Probability of choice (%)	June 2012 Probability of choice (%)	June 2011 EBIT	June 2012 EBIT
Kmart	36	40	204	266
Big W	35	37	177	178

EMOTIONS ARE CATEGORY SPECIFIC

THANK YOU