BMW i4 MARKET INTRODUCTION

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WHAT IS BMW I4?
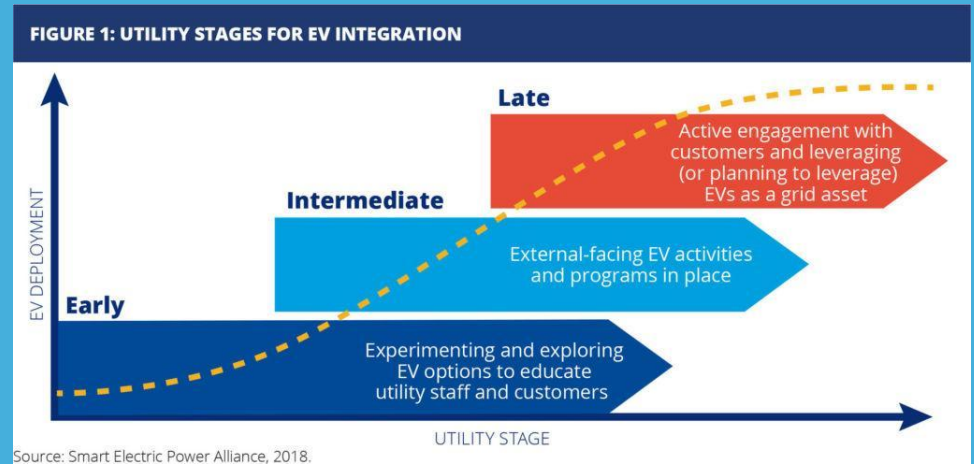

BMW is introducing a new luxury midsize electric sedan

- ○ Most comparable to Tesla Model 3
- ○ Driving range of over 300 miles
- ○ Pricing begins at $50,000

WHY TEXAS

- ○ Growing interest in renewable energy sources in Texas
- ○ The electric car market is growing, but there is not a majority leader in the market in Texas
- ○ BMW could have the early mover advantage

FIGURE 1: UTILITY STAGES FOR EV INTEGRATION

Late — Active engagement with customers and leveraging (or planning to leverage) EVs as a grid asset

Intermediate — External-facing EV activities and programs in place

Early — Experimenting and exploring EV options to educate utility staff and customers

EV DEPLOYMENT

UTILITY STAGE

Source: Smart Electric Power Alliance, 2018.

PROBLEM
FORMULATION

How to introduce the BMW i4 to a market that is most likely to purchase.

→

The introduction determines the success of the BMW i4.

→

Managers need to target a market who would prefer the BMW i4 to the Tesla Model 3, and considers themselves environmentally conscious

OUTCOME IMPORTANCE

The outcomes of this analysis will inform managers who to target and what kind of customers they are looking for.

Without a targeted analysis, BMW would spend a majority of their marketing budget on less desirable market segments.

DATA & VARIABLES

Data was collected by Nejad and company. Zeros and blanks were removed before running analyses.

Variable Name	Definition	Reasons	Target
Income	The mean of the household incomes in the zip code	We can choose the income range that we need	Incomes between 100k-1804k
Age	% of occupied housing units w/householders between 35-44 in the zip code	We can choose the age range that we need	Gen X's & Y's purchase comparable Tesla Model 3
Gender	% of males living in the zip code	Males are more likely to buy a BMW i4.	Seeking high % of males
Households w/2 or more vehicles	% of residents who own 2 or 3 or more cars	Electric cars are generally bought by HH who already own other cars.	Car owners who own 2 or more cars.

FINAL ANALYSIS

- ○ Hierarchical Cluster Analysis using the Ward's Method with Euclidean Distance Non-Standardized
- ○ Initially the data was standardized, but it did not aid in identifying desirable zip codes
- ○ The analysis identified segments two and three in the fifth cluster as our ideal target market

KEY FINDINGS

- ○ Ward Cluster five's segments two and three contained:
  - ● 291 zip codes with 6.7 million people
- ○ Chose to target individuals with an income between $100K to $184K and within an hour's drive to BMW dealership
  - ● This lowered our count to 151 well-targeted zip codes

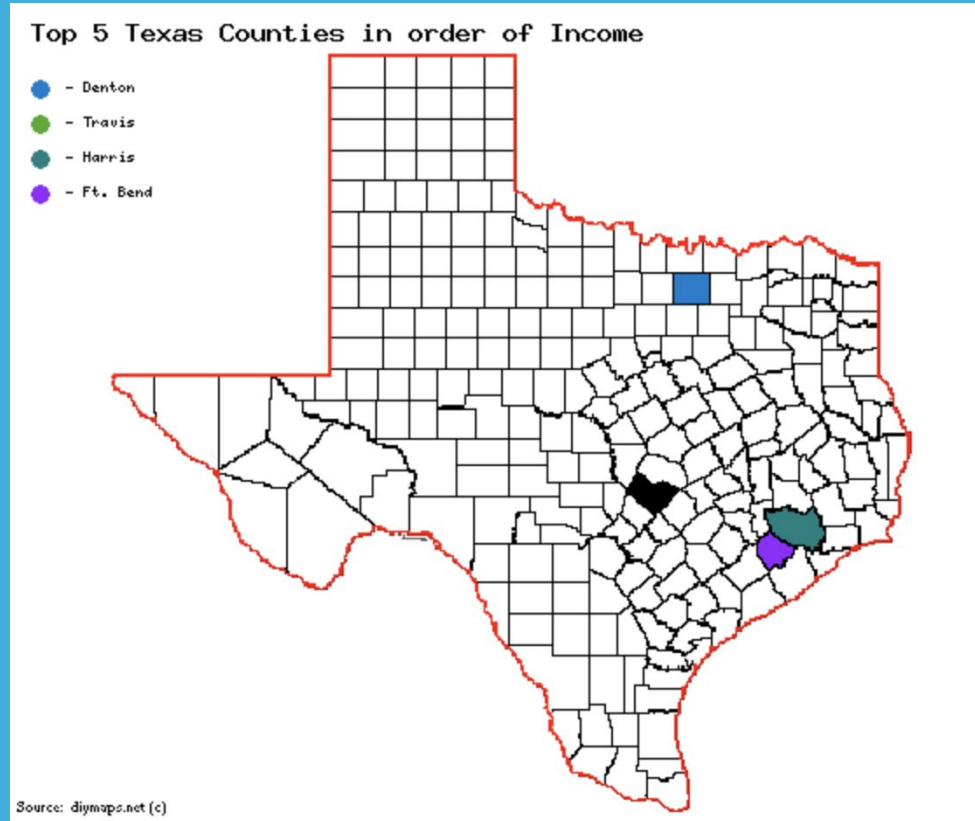|	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5
	Mean	Mean	Mean	Mean	Mean
Income	74,416.00	102,489.00	155,342.00	56,670.00	40,028.00
Age	17.30	19.00	20.80	16.10	14.80
Male	56.10	55.60	58.60	56.30	56.60
Households w/2 or more vehicles	81.14	81.36	83.66	76.65	69.84
Number of zip cdes (Count)	568.00	191.00	100.00	706.00	284.00

KEY FINDINGS

○ The top five target counties are sorted by income. This is a sample of the over 4.5M total zip codes we will market to.

| Zip Codes	Population	County	Post Office Name	Income	Age	Male	HH W/Two Or More Vehicles
75022	24,035.00	DENTON		$ 183,449.00	25.7	57.1	94.3
78732	16,851.00	TRAVIS	AUSTIN	$ 181,374.00	34.3	56.1	91.8
77382	38,138.00	HARRIS	SPRING	$ 173,322.00	23.2	62.3	87.9
77479	85,514.00	FT BEND	SUGARLAND	$ 163,208.00	23.4	57.3	90.1
78739	19,564.00	TRAVIS	AUSTIN	$ 161,724.00	33	54.5	93.5

GEOGRAPHICAL ANALYSIS

○ The top five target counties sorted by income graphically. *Travis county's additional high income zip code not included here.

Top 5 Texas Counties in order of Income

● – Denton
● – Travis
● – Harris
● – Ft. Bend

Source: diymaps.net (c)

MANAGERIAL IMPLICATIONS

○ Recommend that BMW markets through digital and mail channels

- Digital is the most cost effective channel, specifically search engine optimization
- Mail campaign includes the sending of postcards (print is still an excellent disrupter)
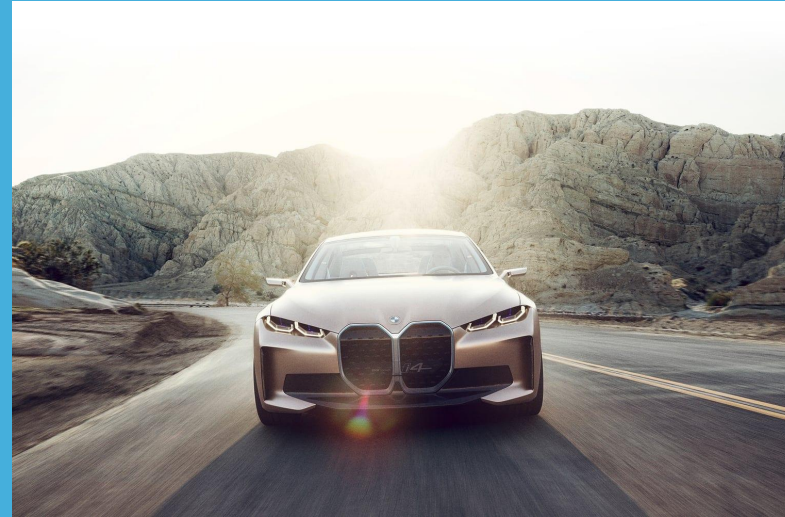
MANAGERIAL IMPLICATIONS

- Mail campaign also includes sending disposable VR headsets to top 5 income/age counties
- Mail campaign would engage potential customers to download a VR app that would allow them to customize and experience the BMW i4