

**IMPACT OF VALUE PROPOSITIONS AND
SOCIAL INFLUENCES
ON COUPON SALES IN B2C
MODERATED BY
PRODUCT VIDEO AND DAILY VIEWS**

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Introduction

- The number of online shoppers in the United States had reached 209.6 millions in 2016 and 215.4 millions in 2017 (Statista, 2018)
- Revenue for online group buying market by 2015 would reached \$ 4.17 billion in the United States. (Wang et al., 2016)
- 71 percent of online American used video sharing sites such as YouTube and Vimeo (Luo et al., 2014)
- Digital video advertising spending in the US was about \$5.24 billion in 2015 and is expected to reach \$16.69 billion by 2020 (E_marketer_2016)

Purpose

1. To evaluate the influence of the two moderating variables, the **introduction of daily views and product video** on coupon sales.
2. To recommend strategies for Groupon agents and vendors in order to increase sales



The Use of Information Technology and Social Network in Online Group Buying

Daily Views

\$25 for a Four-Hour Kayak Rental with Paddle and Life Jacket at Windward Watersports (\$49 Value)

Windward Watersports Kailua (8.6 mi) ★★★★★ 191 Ratings



Product video

Limited Time Remaining!
60+ viewed today
191 Ratings

One Half-Day Single Kayak Rental

43 deal bought
The deal is on!
\$49 ~~\$25~~
49% OFF

Buy

Give as a Gift

SHARE THIS DEAL



Price

Social influences: the number of deal purchased

Theoretical Foundation

- ◎ **Value Proposition** include all the benefits a company can deliver to target customers (Anderson et al., 2006).
 - Price: lower price increases demand for the coupon (Bawa et al., 1997; Amblee & Bui, 2012).
 - Featured Deal: Ads at the top of the page would be more easily grab user's attention (Heo and Sundar, 2001; Amblee & Bui, 2012).
- ◎ **Social Influence**: to assist in the social mobilization process, online group buying sites offer ***tipped and the number of deals purchased*** feature which help potential customers evaluate product quality (Cialdini, 2001; Amblee and Bui, 2012).

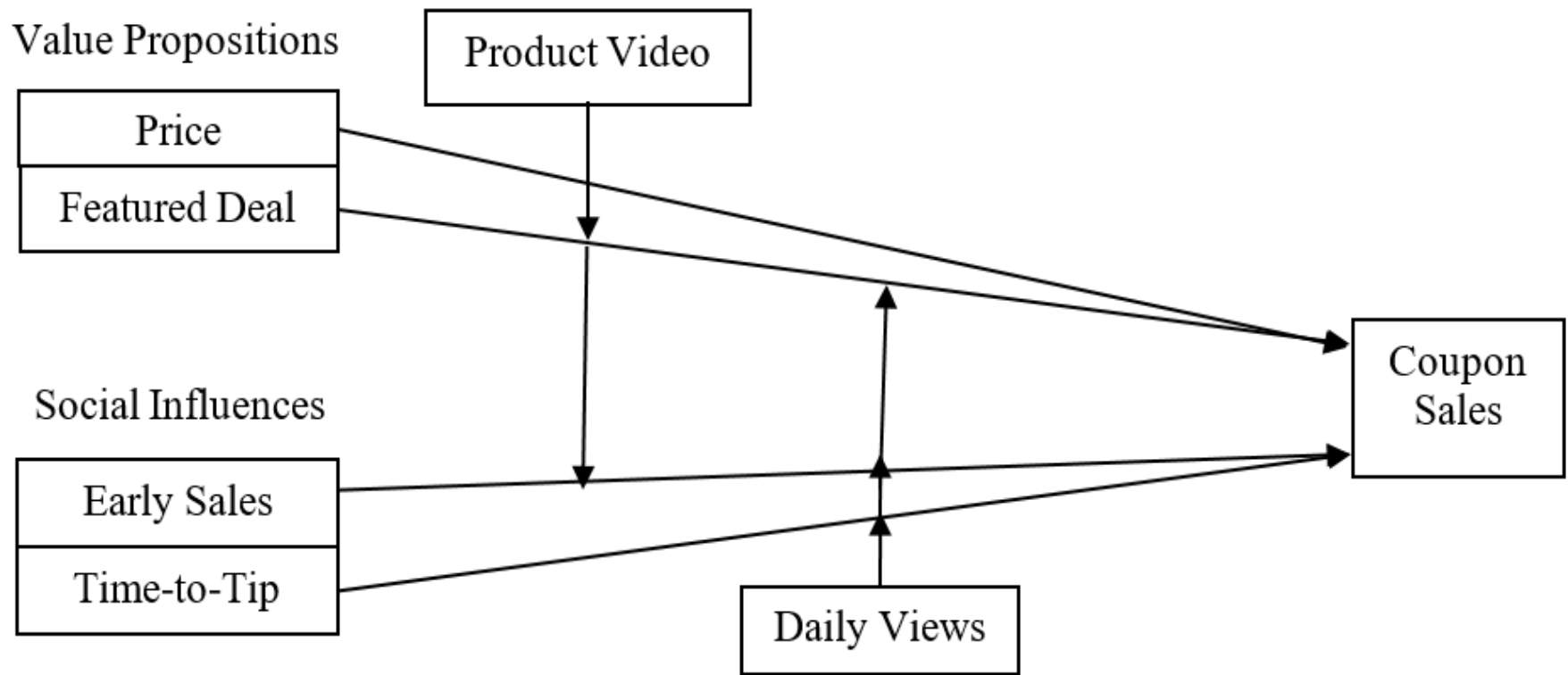
Theoretical Foundation

- ◎ **Daily Views:** the number of potential buyers currently viewing the deals.
 - Many people have viewed a particular deal → a sign of product or service quality (Dean & Lang, 2008)
 - Customers are likely to become anxious that they might lose the opportunity to win the deal if more people are interested in deals (Cialdini, 2001).
- ◎ **Product Video:** explain the functions and benefits of products.
 - **Media richness theory:** rich information can lead to higher purchases (Jahng et al., 2002).
 - **Visual information** can enhance information processing and encourage purchase decision, increasing sales volume (Aljukhadar et al., 2014, Blanco et al., 2010)
 - 90% of customers report that the product videos helped them make purchase decision, thus increasing conversion rate by 80%. (Bowman, 2017)

Hypotheses

- H1: Price has a negative impact on coupon sales.
- H2: Featured deals have a positive impact coupon sales.
- H3: Early sales has a positive impact on coupon sales.
- H4: Shorter Time-to-Tip have a positive impact on coupon sales compared to longer Time-to-Tip.
- H5: Daily views cause shift in coupon sales.
- H6: Product videos cause shift in coupon sales.

Model Relating Value Propositions and Social Influences on Coupon Sales



Methodology

- ⦿ Data were collected from Groupon area in and around Honolulu metropolis.
- ⦿ Data set had complete data N=393
- ⦿ Multiple Regression analyses were used to examine the determinants of coupons sales, with the Chow test being the chosen method that would be used to examine whether daily views and product video cause a shift in sales.
- ⦿ Data set were splited into sub-sample periods before and after implementation of daily views and product video.

Web Interface Change

Figure 1: no daily views and product video

Figure 2

Adding daily views

Local > Food & Drink > Breweries, Wineries & Distilleries > Wine Tasting

\$15 for a 90-Minute Wine Tasting for Two at Oeno Winemaking in Kailua (\$30 Value)

Oeno Winemaking Kailua (8.6 mi) ★★★★★ 833 Ratings



Limited Time Remaining! Up to 50% OFF 833 Ratings

One 90-Minute Wine Tasting for Two With a Bottle to Take Home

342 bought \$30 \$15

The deal is on! 50% OFF

Buy

Give as a Gift

SHARE THIS DEAL

Like 0

Local > Beauty & Spas > Spas > Day Spas

Herbal Sauna and Spa ★★★★★ 3.7 (552 ratings)

Ala Moana - Kakaako, Honolulu (1.7 mi)

\$22.50 for All-Day Spa Pass at Herbal Spa Sauna & Salon (\$40 Value)



Limited Time Remaining! 30+ viewed today 552 ratings

All-Day Spa Pass

\$50 bought \$40 \$22.50

The deal is on! 44% OFF

Buy

Give as a Gift

SHARE THIS DEAL

Like 57

\$25 for a Four-Hour Kayak Rental with Paddle and Life Jacket at Windward Watersports (\$49 Value)

Windward Watersports Kailua (8.6 mi) ★★★★★ 191 Ratings



Limited Time Remaining! 60+ viewed today 191 Ratings

One Half-Day Single Kayak Rental

43 deal bought \$49 \$25

The deal is on! 49% OFF

Buy

Give as a Gift

SHARE THIS DEAL

Like 53

Figure 3

Adding product video

Regression Result

		Hypotheses	Parameter Estimate	Beta	P-value
	Constant		3.67	0	<.0001
Value Proposition	Price	H1	-0.24	-0.13	<.0001
	Featured_Deal	H2	0.98	0.27	<.0001
Social Influence	Early_Sales	H3	0.25	0.62	<.0001
	Time-to-Tip	H4	-0.11	-0.26	<.0001
Model Fit $F_{(4, 392)} = 342.03$		$p < 0.0001$	Adj $R^2 = 0.8392$		

Results of comparison of the two regression models for Daily Views

Variables	Early Period	Later Period	Difference
Intercept	3.17117***	4.01491***	0.84374
Price	-0.15456*	-0.26638***	-0.11182
Featured Deal	0.28448*	1.48202***	1.19754***
Early_Sales	0.25316***	0.18915***	-0.06401***
Time-to-Tip	-0.12770***	-0.09404***	0.03366***

Results of comparison of the two regression models for Product Video

Variables	Early Period	Later Period	Difference
Intercept	4.01491***	3.30392***	-0.71099
Price	-0.26638***	-0.21350***	0.05288
Featured Deal	1.48202***	1.02566***	-0.45636***
Early_Sales	0.18915***	0.27759***	0.08844***
TimetoTip	-0.09404***	-0.08855***	0.00549

Implications

- ① Most existing literature reviews on group buying has employed a questionnaire survey (Hsu et al., 2014; Zhang et al., 2015; Shi & Liao, 2017) or theoretical mathematical modeling (Anand and Aron, 2003; Chen et al., 2010; Wu and Zhu, 2017). In contrast, this study relies on investigating factors influencing coupon sales with emphasizes on practical implication.
- ① **Daily Views and Product Video** cause a shift in sales, indicating their important role in affecting coupon sales.
- ① **Social influences**, measured by early sales, would help generate sales.

Research limitations

- ① Data collected only from Groupon Honolulu **constrains generalizability** of our study. Future research should test the generalizability of findings with data from other group buying sites.
- ① **Daily Views feature** is treated as qualitative variable in term of view or no view. Hence, it is difficult to explain why consumers change their buying behavior. Any future should include the number of people viewing deals.
- ① **Product Video feature** is treated as qualitative variable in term of video or no video. Any future should include the content of the video.

Thank You for Your Attention!

