### Yu-Lun Hsu<sup>1</sup>, Kuan-Yu Chen<sup>2</sup>, Yu-San Ting<sup>3</sup> THE EFFICACY OF ONLINE GROUP BUYING WEBSITES IN TRAVEL **INDUSTRY MARKETING: THE CASE OF GROUPON.COM**

This paper explores the efficacy of Groupon as a marketing venue for the travel industry. Groupon accommodates marketing by travel firms through its section on 'Getaway'. As a new online marketing venue, this could be a means for travel firms to raise sales, increase market share, and boost competitiveness. It is important to determine how well this group-buying website works for travel firms by considering its mechanisms as well as prospective cost, losses and profit.

**Keywords:** group buying; price discrimination; discount deals; travel industry; travel coupons.

## Ю-Лун Хсу, Куан-Ю Чен, Ю-Сан Тінг ЕФЕКТИВНІСТЬ ВЕБСАЙТІВ ГРУПОВОЇ ЗАКУПІВЛІ У ТУРИСТИЧНОМУ МАРКЕТИНГУ: НА ПРИКЛАДІ GROUPON.COM

У статті досліджено ефективність "Groupon" як маркетингового майданчика для індустрії туризму. Туристичні фірми продають свої послуги на "Groupon" у секції "Getaway". У якості нового маркетингового онлайн-майданчика це може бути можливістю для турфірм підняти рівень продажів, збільшити свою частку на ринку та підвищити конкурентоспроможність. Важливо визначити, наскільки корисний цей сайт групової закупівлі для турфірм, через оцінювання його принципів дії та прогнозованих вартості, збитків та прибутків.

Ключові слова: групова закупівля; цінова дискримінація; пропозиції зі знижками; індустрія туризму; туристичні сертифікати.

Табл. 6. Літ. 11.

# Ю-Лун Хсу, Куан-Ю Чен, Ю-Сан Тинг ЭФФЕКТИВНОСТЬ ВЕБСАЙТИВ ГРУППОВОЙ ЗАКУПКИ В ТУРИСТИЧЕСКОМ МАРКЕТИНГЕ: НА ПРИМЕРЕ GROUPON.COM

В статье исследована эффективность "Groupon" как маркетинговой площадки для индустрии туризма. Туристические фирмы продают свои услуги на "Groupon" в секции "Getaway". В качестве новой маркетинговой онлайновой площадки это может быть возможностью для турфирм поднять уровень продаж, увеличить свою долю на рынке и повысить конкурентоспособность. Важно определить, насколько полезен этот сайт групповой закупки для турфирм, через оценивание его принципов действия и прогнозируемых стоимости, убытков и прибылей.

Ключевые слова: групповая закупка; ценовая дискриминация; предложения со скидками; индустрия туризма; туристические сертификаты.

1. Introduction. Group-buying websites draw sellers to make travel offers at a discounted price and fulfill the deal if a given number of consumers express their willingness to buy. There is no outright cost in participating. A minimum number of will-

DBA, Corresponding Author, Assistant Professor, Department of Tourism, Nan Jeon Institute of Technology, Tainan, <sup>2</sup> Taiwan.
<sup>2</sup> PhD, Associate Professor, Department of Recreation Sport and Health Promotion, National Pingtung University of

Science and Technology, Pingtung, Taiwan. <sup>3</sup> DBA, Assistant Professor, Department of Tourism, I-Shou University, Kaohsiung, Taiwan.

ing buyers offsets potential revenue lost from discounting to ensure profit. Groupon is a group-buying website launched in November 2008. The name is a combination of "group" and "coupon" to express the website concept of coupon offers on products/services from sellers to groups of consumers. The website offers a wide range of deals, including tour packages and hotel and restaurant deals available to consumers in 565 cities around the world (Hoovers, 2011). The website is moving towards localization by establishing websites in different countries using the local website address and language. It is important for travel firms to understand the effectiveness of the website mechanism to the travel industry in terms of expected cost, sales and profit.

#### 2. Literature Review

**2.1. Group Buying Mechanism.** The group buying mechanism has 3 elements, which are the number of goods, price and time limitation (Anand & Aron, 2003) [See Table 1]. The number of goods is the number of units that a seller is willing to provide for a given price and number of expected buyers. The offer can be outright 50 units at \$75 per unit with 50 expected buyers or a scale of decreasing price as the number of goods increases. The price is flexible with the ceiling value representing the market price and decrease in value representing the price discount. More goods with willing buyers can lower the price. This acts as an incentive for people interested in an offer to a group together to obtain a product at the lowest possible price. Time limitation expresses the urgency for consumers to make a decision on a offer. Very attractive offers have lesser time limit to create the urgency for group purchase.

Offer	No. of Units	Price per Unit	Time Limit
Example 1	1-25	\$100	No Time Limit
	26-50	\$90	No Time Limit
	51-75	\$80	1 Week
	76-100	\$70	1 Week
Example 2	100	\$70	1-3 Days
Example 3	100	\$50	1 Day

Table 1. Components of the Group Buying Mechanism

Group buying operates through a number of mechanisms. One is discount expectation (Bakar & Hashim, 2008; Kauffman, Lai & Ho, 2010). The initial price posted by group buying websites is slightly higher than at other websites. While the price is higher, the expectation of a discount works as an incentive for consumers to make an order. Another mechanism is the propensity of consumers towards group buying as explained by network externality (Li, Chawla, Rajan & Sycara, 2004). In online consumption, the benefit of this venue for buying increases with the expansion in the user's network. Online consumers participate in group-buying behavior through their networks. More widely networked consumers are more likely to be group buyers. Internet users employ their online networks to increase takers by posting tweets, links and status messages on their social networking accounts, emailing their family members, friends and coworkers, writing blogs, and creating or posting on forum threads. A third explanation is the price threshold (Weiss & Mehrotra, 2001; Dasu & Tong, 2010; Kauffman et al., 2010). Offers of group buying websites indicate the original value, the discount, and the savings together with the time remaining on the offer, number of people who bought, and the number of purchases needed to obtain the discount. Purchases increase as the number of purchases needed to obtain the discount decreases, especially given a time constraint. The last one is mediation of different party interests to ensure competitive pricing (Kannan & Kopalle, 2001; Li et al., 2004). Group buying websites operate online to minimize costs. The site accommodates discounted offers by building its online consumer network while at the same time drawing attractive offers from sellers. In playing their intermediary role, group-buying sites earn a percentage from actual sales.

**2.2.** Benefits and Downsides of Group Buying. Group buying websites do not absolutely deliver benefits to interested parties. Effectively matching seller's offers with buyer's needs is necessary. Attractiveness of an offer covers the nature of a product/service and price discounts relative to a market price.

There are benefits and downsides to buyers, sellers and group buying websites [See Table 2]. Group buying provides consumers with a wide range of discount offers at no additional cost. Making orders is also risk-free because a consumer always gets a product at a discounted price, given a minimum number of takers. The downsides to consumers are the failure to satisfy a demand and waste of time and effort in searching for discounts when there is only a small number of takers. Online sellers do not need to pay upfront but receive upfront payment from purchases made on their offer at the site. Sellers can also create a customer base, build loyal customers, and improve brands awareness. At the same time, sellers have free advertising on the network of the website and its members. However, sellers need to make discounted offers, which could be up to 50% off a price. If poorly managed, discounting can lead to losses for a seller. Unanticipated orders can also lead to failure in accommodating orders. Group buying websites operate at low cost as online firms and generate sales from hosting offers. The website can establish a wide network of sellers and consumers while at the same time accessing market information to grow revenue. However, group-buying websites can incur losses or fail to realize earnings when unable to bring together sellers and buyers effectively. (Chen, Kauffman, Liu & Song, 2010).

Interested Parties	Benefits	Downsides
Online Consumers	Options, Cost savings, Low risk	Failure to obtain product at desired price, waste of time and effort
Online Sellers	No up-front cost, up-front payment, customer base, brand awareness, customer loyalty, free advertising through online network	Offer discount, risk of losing money, inability to manage inflow of orders
Group Buying Website	Low operational costs, sales from hosting, online network, market information	Risk of losing earnings, consumers and sellers

Table 2. Benefits and Downsides of Using Group-Buying Websites

Source: (Chen et al., 2010).

**3. Methodology.** Archival or secondary research and observation are the useful techniques in exploring group-buying website for travel firms based on the case of Groupon.com in the United States. The largest number of website users is in the U.S.

and most widespread travel offers exist for different states. The duration of data collection on travel offers is July 2011 to track the posted travel offers and outcomes of these offers. The investigation provides an analysis of the use of the website by travel firms and potential financial outcomes.

### 4. Results

**4.1. Groupon.com for the Travel Industry.** The "Getaways" page of Groupon.com caters to travel firms and consumers. Clicking "Getaways" directs consumers to travel on deals in their cities or all deals in case a customer wants to travel to different states or countries.

As for July 2011, Groupon.com featured 88 travel offers, with some of the details and deal status shown in Table 3. The offers cover travel locations in the United States, Canada, Caribbean, and Latin and South America available to users in the United States. The deals run for a week. The number of travel deals per week is 21 to 23 offers. The lowest discount rate is 40% and the highest discount rate is 67%. Most (75%) of the deals offer a 50% discount. Although the initial price of travel packages is slightly higher (5-10%) than the price in other travel sites, a 50% discount remains a substantial decrease in cost when compared to purchasing the same travel package at a regular price. A 50% discount represents an actual decrease in price of 40-45% depending on the initial markup (5-10%) on regular prices. Purchases at the end of a week indicate variance in the number of people that bought a travel deal. The lowest number of buyers is 24 while the largest number of buyers is 1,652 people. Although there is a variance in the number of people buying, the deal is on upon reaching the minimum number of people required. At the end of the week, most of the travel deals reached the minimum number of buyers and even achieved significant number of purchases. Only 1 to 2 deals are off at the end of the week. Groupon is able to support most of the deals offered by travel firms with website users meeting the minimum number of purchases and even reaching high numbers, such as more than 1,000 for some of the deals. While there is a small number of travel deals that do not achieve the minimum number at the end of the week, probable explanations are the mismatch between the package and customer interest and/or greater attractiveness of other deals. Travel firms also compete in making attractive offers.

Γ	Period	# of	Discount Rate (%)		# of People		End of Period Status	
[	(July 2011)	Travel			Buying at End		Deal is	Deal not
		Deals			of Period		On	On
[			Lowest	Highest	Lowest	Highest		
	Week 1	21	50	65	74	1479	21	0
	Week 2	22	45	60	51	1182	20	2
	Week 3	23	50	60	120	1235	22	1
Γ	Week 4	22	40	67	24	1652	21	1

Table 3. Groupon Getaways Deal for July 2011

Consideration of the travel deals for the last week of July [See Table 4] provides a more detailed picture of how Groupon accommodates travel deals. In the fourth week of July there were 22 deals. The discount rate varied, with the lowest discount rate at 40% and the highest discount at 67%. Of the 22 deals, 30.82 percent offered 50% discount and the same percentage offered 51-55% discount. Travel firms set different numbers of minimum purchases to tip a deal. The lowest number is 2 for a more pricey travel deal in Antigua and Barbuda and the highest number is 100 for a less pricey deal with Avis car rental. The common minimum number is 10 to 20 people buying a deal. Of 22 travel deals, all the deals were on at the end of the week with the minimum number to tip a deal reached in the first 2-3 days after a deal posting. At the end of the week, the number of purchases substantially increased. Except for the one deal that did not push through, all the deals were on with significant number of purchases. The travel firms posting the deals should expect customers to redeem their coupons in the next 6 months to 1 year, depending on the terms posted.

Travel Deals	Value of Travel Deal				Travel Deal Status		
(July Week 4)	Discount, %	Original Price	Discoun- ted Price	Cost Savings	# to Tip Deal	End-of- Deal Status	# Bought at End of Deal
Chic, Vibrant Suites, Vancouver	52.57	350	184	166	5	Deal is On	555 bought/45 remaining
Omni Bedford Springs Resort	53.13	638	339	299	10	Deal is On	1135 bought /limited quantity available
Cotton Tree Lodge, San Filipe, Brazil	50	1479	739	740	5	Deal is On	88 bought /limited quantity available
Crystal Palms Beach Resort, Florida	50	298	149	149	20	Deal is On	944 bought/217 remaining
Boutique Hotel, New Brunswick, Canada	50	260	129	131	10	Deal is On	24 bought/limited quantity available
Saint James Club Resort and Villas, Antigua and Barbuda	53	2560	1199	1361	2	Deal is On	32 bought/limited quantity available
The Fitzpatrick Hotel, Washington, Georgia	54	120	55	65	15	Deal is On	243 bought/limited quantity available
Green Valley Ranch, Henderson, Nevada	64	278	100	178	10	Deal is On	197 bought/limited quantity available
Hollywood Casino Bay, St Louis, Mississippi	60	139	120	119	5	Deal is On	70 bought/limited quantity available

Table 4. Groupon Getaways Deal for Week 4 of July 2011

### The End of Table 4

Travel Deals						Travel Deal Status	
(July Week 4)	Discount,	Original	Discoun-	Cost	# to	End-of-	# Bought at
	%	Price	ted Price	Savings	Tip	Deal	End of Deal
				0	Deal	Status	
The Lodge of	51	614	299	315	15	Deal is	182
Four Seasons,						On	bought/limited
Ozark,							quantity
Missouri							available
Mountain Top	50	550	275	275	5	Deal is	62
Inn & Resort, Chittenden.						On	bought/limited
Vermont							quantity available
The Peabody	50	350	174	176	20	Deal is	128
Littlerock,	50	000	174	170	20	On	bought/limited
Littlerock,						011	quantity
Arkansas							available
Reunion	50	1440	720	720	20	Deal is	2 bought/
Resort,						Off	18 more to
Reunion,							tip the deal
Florida						-	
Stagecoach	45	280	154	126	5	Deal is	260
Trails Guest						On	bought/limited
Ranch, Yucca,							quantity
Arizona	50	40	20	20	100	Deal is	available
Avis Car Rental	50	40	20	20	100	Deal 1s On	1625 bought/limited
Relita						Oli	quantity
							available
The Dupont	45	545	299	246	5	Deal is	131
Circle Hotel,						On	bought/limited
Washington							quantity
D.C.							available
Brasskey	51	460	225	235	25	Deal is	457bought/
Guesthouse,						On	43 remaining
Provinceton,	40	194	116	78	5	D1 :-	$540 h \dots h + \ell$
Chetola Resort,	40	194	110	10	5	Deal is On	549 bought/ 116 remaining
Blowing Rock,						Oli	110 Telliaming
North							
Carolina							
Il Lugano	49	548	279	269	10	Deal is	124
Suite Hotel,		-				On	bought/limited
Ft.							quantity
Lauderdale,							available
Florida		007	4.75	450	4.0	D 1.	000
Sandaway,	55	325	147	178	10	Deal is	383
Oxford, Maryland						On	bought/limited
							quantity available
Hard Rock	67	372	124	248	20	Deal is	1652bought
Hotel Chicago		0,2		- 10		On	(sold out on
						-	29 July)
Executive,	45	350	194	156	20	Deal is	300 bought
Whistler,						On	(sold out on
British							29 July)
Columbia,							
Canada							

**4.2.** Cost, Sales and Profit in Using Groupon. Effectiveness of Groupon can be justified by comparing cost, revenue and profit based on assumed redemption rate of 40%, assumed 50% new customers, assumed 50% additional purchases, and additional purchase amount comprising the difference between the regular and discounted price [See Tables 5 and 6]. The computations employed two Groupon calculators (Crudele, 2010; Eklund, 2011), one of which computed the cost of using Groupon and the other computed the profit and return on investment in using the website.

The cost of the hotel in Chicago in using Groupon to offer its travel deal can be obtained from the value on 'Total Net Revenue Lost by Offering the Deal', which is - \$102, 424 [See Table 5]. The value represents the total cost of offering the deal at Groupon is less than the total revenue in using Groupon. The value is negative, which means that total revenue is higher than the total cost. The cost incurred by the hotel in posting the deal on Groupon was justifiable.

Voucher value	\$372
Voucher price	\$124
Voucher sales expected	1,652
% Redeemed before voucher expiration date is reached	40
% Sales with additional purchases	50
Average additional purchase amount (beyond voucher value)	\$248
% Redeemers that become regular customers	50
Average number of visits by a typical regular customer per month	1
Average amount of money your regular customers spend	\$496
Your revenue per voucher sale	\$62.00
Groupon's share per voucher sale	\$62.00
Groupon's total earnings	\$102,424
Total product/service sales price	\$204,848
Total number redeemed	1,652
Total number of additional purchases	826
Total number of new regular customers gained	826
Total revenue earned from additional purchases	\$204,848
Total revenue earned from voucher sales	\$102,424
Total revenue gained from regular customers next month (post deal offering)	\$409,696
Total revenue you earn from offer plus next month's purchases from new customers	\$716,968
Total product/service sales value	\$614,544
Total Net Revenue Lost By Offering Deal (total expenses minus total revenue)	-\$102,424.00
Total number of visits needed by newly acquired customers in order to break even	0.75
Expense/voucher sold	\$62.00
Expense/voucher redeemed	\$62.00
Regular customer acquisition cost	\$124.00
Percentage of voucher's value lost with each voucher purchase	-16.67%
*Important* - This tool doesn't not take into account any additional workers that merchants must hire to handle appointment scheduling and the hundreds/thousands of new customers coming in to redeem their vouchers.	

#### Table 5. Cost of Using Groupon

Source: Derived from the Groupon calculator (Eklund, 2011).

Assuming a 150% markup or margin and a 40% redemption rate, the profit from coupon purchases is \$4,096.96 with a long-term profit of \$249,914.56, a return on investment in the long-term is 95.31% [See Table 6]. Short-term profit is small while long-term profit and return on investment are significant, when considering the zero outright cost of using Groupon. Using Groupon to post travel deals can increase the number of customers, including new consumers, as well as lead to financial benefit for a firm.

Description	Factor	Value
What is the face value of the certificate?	Offer Amount (O)	\$372.00
How much will someone spend to buy the		
certificate?	Sell Amount (S)	\$124.00
What % of paid money will Groupon get?	Groupon's Cut (G)	50.00%
What is your normal price margin?	Margin (M)	150.00%
What is the average amount a customer spends	Certificate Average Ticket	
on a purchase using the certificate?	(A)	\$372.00
What % of the certificates do you expect to be		
redeemed?	Redeemed Ticket % (R)	40.00%
How many certificates do you expect to sell?	Total Sold (T)	1,652
How many new, recurring customers do you		
expect to attract from the campaign, expressed		
as a % of total certificates sold?	New Patron % (N)	50.00%
How much will a typical customer spend with	New Patron Long Time	
you over their lifetime	Income (L)	\$496.00
What other financial impact will the promotion		
have on your brand - positively or negatively?	Brand Value (V)	\$0.00
	"	•
	P	,
	RESULTS	
Profit from purchases w/ certificate	Campaign Profit	\$4,096.96
Long-term Profits (includes growth of customer		
base, revenue effects tied to brand value and		
purchases with certificate)	Total Long Term Profit	\$249,914.56
ROI over the Long Time Period	ROI	95.31%

Table 6. Profit and ROI in using Groupon

Source: Derived from the Groupon calculator (Crudele, 2010).

**5.** Conclusion. Groupon provides special accommodation to travel firms and travelers by allotting a page on "Getaways". The page brings together travel firms and travel deal buyers through discount offers, where the parties can negotiate on price. Not all the offers push through. A key to a successful offer is for travel firms to make attractive offers relative to the market and the other offers made on the website. Attractiveness refers to discount rate, aesthetics and information on the deal. At the same time, an offer should also meet market demand and the demand of Groupon subscribers. In addition, offering discounts on Groupon.com means losses of a travel firm from the slash in price and the share of Groupon. Travel firms need to ensure that the discount price should attract enough buyers to offset losses, raise revenue, and gain profit. Groupon is expanding to other countries to make discount offers on local and international travel deals available to a wider range of markets. Effectiveness of Groupon for travel firms in different countries is an important area in continuing this research.

#### References

Anand, K.S., Aron, R. (2003). Group buying on the Web: A comparison of price-discovery mechanisms. Management Science, 49(11), 1546-1562.

*Bakar, A.R.A., Hashim, F.* (2008). The determinants of online hotel reservation among university staffs. Communications of the IBIMA 4(3), 13-21.

*Chen, J., Kauffman, R.J., Liung, Y., Song, X.* (2010). Segmenting uncertain demand in group-buying auctions. Electronic Commerce Research and Applications, 9(2), 126-147.

*Crudele, M.* (2010). GroupOn ROI – The Math. [Accessed July 25, 2011, http://www.o2p.org/2010/05/group-on-roi-the-math/].

*Dasu, S., Tong, C.* (2010). Dynamic pricing when consumers are strategic: Analysis of posted and contingent pricing schemes. European Journal of Operational Research, 204(3), 662-671.

*Eklund, K.* (2010). Group Buying: When is it Not Cost Effective for Business Owners? [Accessed July 25, 2011, http://tomuse.com/group-buying-business-cost-effective/].

Hoovers (2011). Groupon, Inc.: Overview. [Accessed July 25, 2011, http://www.hoovers.com/groupon/ --ID\_\_161810--/freeuk-co-factsheet.xhtml].

*Kannan, P.K., Kopalle, P.K.* (2001). Dynamic pricing on the Internet: Importance and implications for consumer behavior. International Journal of Electronic Commerce, 5(3), 63-83.

*Kauffman, R.J., Lai, H., Ho, C.T.* (2010). Incentive mechanisms, fairness and participation in online group-buying auctions. Electronic Commerce Research and Applications, 9(3), 249-262.

*Li*, *C.*, *Chawla*, *S.*, *Rajan*, *U.*, *Sycara*, *K*. (2004). Mechanism design of coalition formation and cost sharing in group-buying markets. Electronic Commerce Research and Applications, 3(4), 341-354.

*Weiss, R.M., Mehrotra, A.K.* (2001). Online dynamic pricing: Efficiency, equity and the future of e-commerce. Virginia Journal of Law and Technology, 6(2), 28.

Стаття надійшла до редакції 22.11.2011.