



#### Available online at www.sciencedirect.com

### **ScienceDirect**



Procedia Computer Science 91 (2016) 625 - 634

Information Technology and Quantitative Management (ITQM 2016)

## Empirical research on how product advertising, time pressure and the discount rate effect on the sales of products in online group purchase

Yanbin Liu<sup>a</sup>, Wei Liu<sup>b</sup>, Ping Yuan<sup>c\*</sup>, Zhonggen Zhang<sup>d</sup>

<sup>a</sup>Ningbo Institute of Technology, Zhejiang University, Ningbo, 315100, China <sup>b</sup> School of Foreign Languages, Beijing Forestry University, Beijing, 100083, China <sup>c</sup> Ningbo Institute of Technology, Zhejiang University, Ningbo, 315100, China <sup>d</sup>Ningbo Institute of Technology, Zhejiang University, Ningbo, 315100, China

#### Abstract

The rapid growth of the market for the group purchase website brings opportunity and challenge, to obtain a stable customer base has become a key factor for the development of group purchase website, so we must identify what purchase factors affecting consumer choice. Through the cooperation with a large tourism group purchase platform in China, we obtain 181 days data that includes the purchase of 4898 group purchase products and related variables. Then we do an empirical analysis on the impact of the group purchase product factors, the results showed that the product advertising effect, product discount level, time pressure product page to display will have a significant impact on the amount of purchase products. Our research not only fills on the blank of influence factors of group purchase behavior, but also provides some practical guidance for the development of group purchase platform.

© 2016 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the Organizing Committee of ITQM 2016

Keywords: Network group buying platform, Price information, Advertising effect, Time pressure, Purchase quantity;

#### 1.Introduction

According to The 37th Statistical Report on the Internet Network Development in China, by December 2015, the number of Chinese netizens had reached 0.68 billion and the coverage of internet had risen to 50.3%. With the steady development of internet in China, the scale and coverage of online shopping are soaring. The online shoppers had increased by 14.3% to 0.413 billion, an increase of 51.83 million compared to the end of

Peer-review under responsibility of the Organizing Committee of ITQM 2016 doi:10.1016/j.procs.2016.07.156

<sup>\*</sup> Corresponding author. Tel.:+ 86 0574 88130189. *E-mail address*: yuanping1212@163.com.

2014, with a coverage of 60%. People engaged in group purchasing had risen by 4.4% (7.55 million) to 0.18 billion, with a coverage of 26.2% compared to the end of 2014[1]. The online group purchasing turnover has amounted to 74.75 billion with 1.191 billion users involved.

Online group purchasing refers to the transaction made by buyers with the sellers on the internet by utilizing the information exchange platform of internet while the group purchasing websites benefit from the services they provide or the price differences. Demand aggregation and quantity discount are the two essential elements that make it possible [2]. The speedy expansion of the group purchasing market brings both opportunities and challenges to those concerned websites/platforms. According to The Data Monitoring Report on the Online Group Purchasing in China, by the end of June of 2015, 6246 group purchasing websites had been founded, among which 5376 were closed, a closure rate of 86% (4/5 of all websites).

Fierce competition, products poor quality and lack of commercial integrity are the factors that lead to the closure of so many group purchasing websites, but the most decisive one is the unsteady sales of most websites. Compared with the traditional consumption mode, this brand new spending mode makes the consumer psychology and spending behavior more complicated and subtle. In the buying process, the consumers are stimulated by the advertisements and the discount of the products. In addition, the buyers will be definitely affected by the reference group as group purchasing is a kind of online cooperation [3]. The interface operation will bring time pressure to potential buyers, which will also exert influence on the psychology and behavior of consumers and then their decision to buy or not. At present, the online group purchasing market is still growing and the competition becomes fiercer. With such a background, it is of great significance to dig into the field and find out the factors that influence the decision making of consumers, whose findings will help the concerned websites to make effective strategies, promote sales and finally increase the market share. The difficulty to obtain related data has always been hindering the study of the above question.

The present research team has obtained the data of 54 variables of 4898 products in 181 days by cooperating with a large tourism group purchasing website in China and conducted an empirical analysis on the data about the factors that influence the decision. Some instructive findings are secured in the end.

#### 2. Literature Review

#### 2.1 Related Research on Online Group Purchasing

Group purchasing is a mode of spending, in which individuals or groups make a decision to buy the same product and hence bear the same risk incited by the decision. The buying behavior is influenced by the environment, organizations and other individuals. The large number of consumers brings down the price. Group purchasing has two features: the minimum number of buyers and the time duration in which the products are available [4].

Kauffman and Wang analyzed the foundation of group purchasing and the consumer behavior in it and found its five interesting aspects: (1) anticipation of falling price. The bidders will enter the bidding when the price is still high and anticipates that the price will go down and his or her participation will help further bring down the price; (2) group-buying mentality. The bidder can benefit from the participation of other; (3) before-price drop effect. When it reaches the next low bidding price, the bidders' willingness to enter the bid is aroused and the number of bidders is rocketing; (4) reservation price effect. The bidders will decide to buy only when the price is lower than one's reserved price; (5) word-of-mouth induced behavior. The bidders benefit from the low price through cooperation instead of competing with one another as in traditional auctions [4]. Liu and Sutanto, with similar methodology, take a famous "one product one day" group purchasing website stationed in Beijing as its subject and analyze 500 per-hour orders of the website [5]. The study finds that the buying timing has an inverted U curve relationship with the number of new orders and that the existing orders have a positive influence on the number of new orders only during the first half of the day, which may be

#### Download English Version:

# https://daneshyari.com/en/article/488375

Download Persian Version:

https://daneshyari.com/article/488375

<u>Daneshyari.com</u>