The Effect of Marketer-Generated Content and User-Generated Content on Perceived Product Quality

Emergent Research Forum Paper

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Abstract

User-generated content (UGC) and marketer-generated content (MGC) are two types of information facilitating consumers' decision-making process in online markets. Among the prior research in MGC and UGC, limited attention has been paid to the impact of MGC textual content as well as the role of MGC and UGC interplay in online markets. To fill in the research gaps, in this paper, we first define four types of combined information of MGC and UGC. Then through the theoretical lens of signaling theory and the framework of hypothesis-testing theory, we hypothesize their impact on consumers' perception of product quality and subsequent purchase intention. By putting forward an online experiment design to test our hypotheses, the paper intends to extend the MGC-UGC research in online markets and to reveal the antecedents of consumers' perceived product quality from MGC-UGC interplay.

Keywords

Online markets, user-generated content, marketer-generated content, perceived product quality, signaling theory, hypothesis-testing framework.

Introduction

Online markets have been extremely popular during the past two decades. Due to the importance in mitigating information asymmetry, information seeking and processing has been at the center of eCommerce research (Wells et al. 2011). In online markets, there are broadly two types of product-related information, marketer-generated content (MGC) and user-generated content (UGC). MGC in online markets refers to product information generated by marketers to present their products, such as attribute information and product descriptions. UGC in online markets is the product-related content generated by consumers. And online reviews are the most popular UGC and have been studied comprehensively (Archak et al. 2011; Forman et al. 2008). Research has shown that both product descriptions and product reviews significantly influence uncertainty and risk perception (Dimoka et al. 2012; Weathers et al. 2007), purchase/repurchase intention (Park et al. 2008; Wells et al. 2011), price premium (Dimoka et al. 2012; Pavlou and Dimoka 2006) and product sales (Chevalier and Mayzlin 2006; Forman et al. 2008).

Despite the intensive studies in MGC or UGC separately in online markets, research investigating their roles of decision-making still lags in the following aspects that motivate our study. First, prior MGC studies in online markets largely focused on MGC presentation formats, such as photo (Song and Kim 2012) , flash (Hong et al. 2004) and 3D rotation (Park et al. 2008), leaving the content much less investigated. Second, though the impact of the MGC-UGC interplay has been studied on social media marketing context (Goh et al. 2013), prior research has drawn little attention to their combination in online markets.

To fill in the research gap, our study is to examine the impact of MGC-UGC interplay in online markets on product perceived quality while incorporating the role of texts. In seeking the relationship, we also try to

evaluate the behavioral outcome of the process. Thus, our research questions are: *How does the combination of MGC and UGC information influence the consumer' perception of product quality? And subsequently, how is the consumer purchase intention affected?* To answer the research questions, we use signaling theory and hypothesis-testing framework to articulate our hypotheses. We also plan to collect data from Tmall.com and conduct online experiment to test the hypotheses.

Theoretical Background

MGC and UGC in Online Markets

MGC has been mostly investigated in the context of online social media. Goh et al. (2013) defined MGC as the social media content such as posts and comments which are generated by marketers on behalf of the firms to engage consumer actively. However, the MGC in this study, is defined as the content generated by sellers to introduce their products or themselves, such as product descriptions. Therefore, the MGC in two contexts might be different in their forms and the capability of influencing consumers' decision-making process. In our paper, the form of MGC we particularly look into is product description.

Product descriptions, not only act as advertisements incorporating rich media to keep attractive, they are also used as introduction to the products' attributes, functions as well as application scenarios. For example, in a description of an air conditioner product, the seller might introduce many product features such as cooling speed, installation, fan speed control, auto-restart and energy saving capability. The seller could also describe the product's application scenarios, for example, whether the room is used in office or at home, the feasible room size, and whether it is noisy while operating. All those are highlighted in MGC by sellers, showing as product's selling points. Hence we define each of such highlighted attributes, functions or application scenarios in the product descriptions as an *MGC dimension*. Therefore, online markets MGC usually contain multiple MGC dimensions via its texts, pictures, videos or other display formats.

Besides MGC in online markets, research has revealed that people tend to look for online reviews, when they face uncertainties in online shopping (Chevalier and Mayzlin 2006). During the last decade, numeric information, in together with textual information in reviews has been studied intensively, such as review ratings (Bao and Chau 2016), identity disclosure (Forman et al. 2008), product features (Archak et al. 2011) and emotions (Garcia and Schweitzer 2011; Yin et al. 2014). For an online shopping experience, both MGC and UGC are exposed to the consumers. While MGC is constructed by sellers and provides full descriptions, reviews are more user-oriented. In a review, consumers describe products in terms of different usage scenarios or attributes from the user's perspective (Archak et al. 2011; Chen and Xie 2008). To comprehend UGC's combined value with MGC, we divide UGC information into two types, one that provides information to the attributes, functions or application scenarios described in MGC, and the other that offers additional information beyond MGC. For example, in a short piece of MGC on air conditioner, three selling-points are presented, introducing high cooling speed, easy installation and energy saving mode. Among the product's reviews, there could be ones endorsing or opposing any of the three points, and there could also be reviews bringing new attributes into consideration, such as dependable control and low operating noise.

Both types are associated with sentiment, so the attributes can be reviewed as good or bad ones according to consumers' experience. Therefore, for the MGC dimension that is overall supported or opposed by online reviews, we define it as a *confirmed or disconfirmed dimension in UGC*; for each new attribute or function embedded in UGC but not in MGC, we define it as an *additional positive/negative dimension in UGC*.

Perceived Quality

Products in online markets are associated with higher uncertainty and risks (Wells et al. 2011). The unobservable product quality is one of the driving forces for information seeking behaviors (Kirmani and Rao 2000). Perceived quality is a concept developed to reflect the consumers' overall evaluation to the product quality (Parasuraman et al. 1985). It is defined as the consumer's judgment about a product's overall excellence or superiority and it is different from objective quality (Zeithaml 1988). While objective quality involves an objective aspect of feature of a thing or event (Rowley 1998), perceived quality is a type

of attitude and a higher level abstraction rather than a specific attribute of a product (Zeithaml 1988). Moreover, comparing with a stable objective quality, the perception of quality might change over time as a result of added information, increased competition in a product category, and changing expectations (Zeithaml 1988). Early research on perceived quality mainly focused on the perceived quality of services, such as hospital services (Gotlieb et al. 1994) and the hotel services (Boulding et al. 1993). Later the usage of the concept has been extended to research on brand quality (Richardson et al. 1994), information system services (Kettinger and Lee 2005) and online shopping (Wells et al. 2011).

Quality signals are transmitted in many forms and can further be classified as intrinsic and extrinsic cues (Olson and Jacoby 1972). Intrinsic cues represent product-related attributes, such as the physical composition or color of the product (Richardson et al. 1994). Extrinsic cues are also product-related but not part of the physical product itself, such as the price and brand (Zeithaml 1988). Many have stated that extrinsic cues are more influential as they are readily available and easy assessed by consumers (Wells et al. 2011). Signaling theory is often used as the framework to assess the consumers' perception of quality (Rao et al. 1999). In the next section, we will introduce and apply the theory to MGC and UGC in online markets.

Hypotheses Development

In signaling theory, a signal is an action that the seller can take to convey information credibly about unobservable product quality to the buyer (Rao et al. 1999). Take advertising expenditure for an example. High quality firms can recompense their advertising expenditure from future sales. However, low quality firms, if advertised heavily, would be less likely to recover the expenditure due to fewer repeat purchases. So signaling posits a "rational" consumer who expects a firm to honor the implicit commitment conveyed through a signal because not honoring the commitment is economically unwise (Kirmani and Rao 2000).

Online sellers tend to present more product attributes and provide more detailed descriptions. We contend that the number of MGC dimensions can function as a signal, influencing product's evaluation. First, the number of MGC dimensions is extrinsic to the product being sold, since a large or small number of MGC dimensions in online markets does not change the its inherent attributes. Second, the number of MGC dimensions is also a credible signal. If the product with more MGC dimensions turns out to be of poor quality, consumers can punish the seller by various means, from report to the markets to negative word-of-mouth. Therefore, as extrinsic attributes often serve as surrogates for intrinsic product attributes (Wells et al. 2011; Zeithaml 1988), we hypothesize that,

Hypothesis 1. The number of MGC dimensions in online markets is positively associated with the consumers' perception of product quality.

Though online reviews are not provided by sellers, they are considered as an element of marketing communication mix (Chen and Xie 2008). Given that they are also extrinsic to the product and managed by the platform in a unified manner, the combined information between MGC and UGC could also serve as the signals to perceived quality of products. Therefore, similar to Hypothesis 1, we hypothesize that,

Hypotheses 2a-2b. The number of confirmed (disconfirmed) dimensions in UGC is positively (negatively) associated with the consumers' perception of product quality.

Hypotheses 3a-3b. The number of additional positive (negative) dimensions in UGC is positively (negatively) associated with the consumers' perception of product quality.

Along with many theoretical development and empirical findings in IS literature, an attitudinal measure of an object, such as perceived product quality, is likely to influence the behavioral intention towards the object (Boulding et al. 1993; Wells et al. 2011). To better understand how combined information of MGC and UGC ultimately influence purchase intention, we hypothesize that,

Hypothesis 4. The consumers' perception of product quality is positively associated with consumers' intention to purchase the product.

Hypothesis-testing framework was used in social interaction area. When we form our early impression of new acquaintances, we may wish to test hypotheses based upon our expectations about their personal dispositions (Snyder and Swann 1978). In marketing research, advertising is proposed as the source of hypotheses. It works by initially arousing expectations that subsequently lead to a disposition to confirm

during experience with the product (Deighton 1984). Without such expectations or hypotheses, consumers understanding towards products are constrained as they are less likely to generate or recognize new diagnostic evidence (Hoch and Deighton 1989). In our context of online markets, we contend that, MGC can be viewed as tentative hypotheses to be tested with evidence. With MGC dimensions enabling consumers to form hypotheses on product attributes, different types of UGC information would affect consumers' perception of the product through interpreting evidence to the hypotheses.

According to hypothesis-testing framework, we posit that the review evidence to the hypothesized product dimension would be more impactful on product quality perception than the review content which is new to consumers, as the new dimensions are not in consumers' hypothesized set or expectations towards the product. Therefore, we hypothesize that,

Hypothesis 5a-5b. The number of confirmed (disconfirmed) dimensions in UGC is more influential for perceived product quality than the number of additional positive (negative) dimensions in UGC.

Data and Method

The product data for this study will be collected from Tmall.com, a sub-market owned by Taobao.com and the largest B2C retail platform in Asia. We intend to select products from expensive durable product categories, as they are supposed to induce higher perceived risk and uncertainty perceptions (Duncan and Olshavsky 1982). Therefore, we prefer to choose Home Furniture as our focal product category. To assess the combined information of MGC and UGC, we plan to recruit eligible students to evaluate each aspect by responding to items. For a stringent study, we will also control for various variables of experiment context as well as participants. To test our hypotheses, we will create mock-up product pages based on the collected product data. We will recruit people to carefully inspect the randomly assigned mock-up products and report their subjective assessment of our survey questions afterwards. The dataset will be constructed at individual level for hypothesis testing. And analyses will be conducted in a later stage.

Potential Contributions

Our proposed study applies the signaling theory and the framework of hypothesis-testing to investigate MGC-UGC interplay in online markets. Our study aims at contributing to the following aspects. First, our study tries to extend the research of MGC and UGC in online markets. Serving as a first attempt to measure the combined information of MGC and UGC, our research intends to examine the complementary role of UGC to MGC in affecting consumers' perception. Second, our research joins the few studies investigating product quality in eCommerce (Wells et al. 2011), revealing the antecedents of perceived product quality in online markets. Third, our findings may bring insights to the research and practices in online markets.

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