Message and source characteristics as drivers of mobile digital review persuasiveness: does cultural context play a role?

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Abstract: This study examines the impacts of message valence (positive/negative/sided) and perceived source similarity on user attitudes towards mobile restaurant reviews and review persuasiveness in low- and high-context cultures. Two experiments were conducted in the USA and Ukraine. The results reveal significant differences in consumer paths to adopting mobile digital reviews in low-context vs. high-context cultures. They indicate that in low-context cultures positive reviews are perceived as more trustworthy, credible, and helpful than negative or two-sided reviews. The same relationships are observed in high-context cultures only under conditions of perceived source similarity. Review helpfulness and credibility, in turn, positively impact its persuasiveness in both high- and low-context communication traditions. Based on the findings, future research avenues and managerial implications are proposed.

Keywords: digital customer reviews; message and source characteristics; high-low context cultures; mobile platforms; Yelp.
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1 Introduction

According to recent industry reports, 90% of global consumers read and rely on online product reviews for their decision-making, and 45% of smart phone owners read reviews using mobile interfaces (Mintel, 2015). The electronic word-of-mouth (eWOM) not only influence referral network structure, consumer adoption behaviour and decision making (Kowatsch et al., 2011; López and Sicilia, 2014; Vilpponen et al., 2006; Yayl and Bayram, 2012), but also sales revenues and corporate reputations (Griffith, 2011). The growing popularity and influence of digital customer reviews is especially critical for services (e.g. hotels and restaurants), which cannot be objectively evaluated before consumption and are more vulnerable to criticism on opinion platforms (Litvin et al., 2008). The increasingly location-based search for service reviews is characterised by
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high time-sensitivity and rapid pace of attitude formation and customer conversion (Limpf and Voorveld, 2015; Tode, 2012). On the other hand, cognitive personalisation helps to better understand the effects of online reviews (Xia and Bechwati, 2008), and the effectiveness of eWOM on social media could depend on consumer relation with the focal brands, which influence the intention to forward the viral advertising message (Shan and King, 2015). These factors contribute to growing complexity in managing firm’s own customer review platforms, as well as in participating in conversations on third-party platforms. Therefore, better understanding of factors affecting customer perceptions and adoption of eWOM in mobile service-centred environments is imperative. Specifically, it is important to know what (if any) reviewer and message characteristics are relevant in the process of reading reviews of service offerings on mobile platforms. This knowledge could assist in developing better search and filtering options, as well as review presentation interfaces that would facilitate optimal decision-making. Additionally, global reach of such service review platforms as Yelp and Trip Advisor necessitates greater emphasis on understanding cultural specifics of the effects of message and source-related factors on review attitudes and adoption.

An expanding stream of research in the areas of eWOM and online consumer reviews has addressed consumer motivations to post (Alexandrov et al., 2013; Bao, 2015; Hennig-Thurau et al., 2004), seek (Fong and Burton, 2006; Goldsmith and Horowitz, 2006) and share (Alboqami et al., 2015) online reviews. Certain attention has also been given to the source and message characteristics that affect online reviews’ perceived usefulness and credibility (Carr and Hayes, 2014; Cheung et al., 2009; Li and Zhan, 2011; Park and Lee, 2008; Purnawirawan et al., 2012). Additionally, several recent studies have assessed the effects of eWOM on new product adoption (Lopez and Sicilia, 2013), consumers’ attitudes toward the product and purchase intention (Wang et al., 2015), as well as sales (Davis and Khazanchi, 2008; Zhang et al., 2013). Other issues that received attention in the extant literature include moderating roles of product (Sen and Lerman, 2007), social (Steffes and Burgee, 2009), and personality (Gupta and Harris, 2010) factors in the eWOM’s influence on purchasing decisions. However, the extant literature is fragmented by product and culture contexts, and characterised by inconsistent findings, warranting a comparative approach that would simultaneously evaluate the roles of source, message, and cultural factors in affecting review persuasiveness. Moreover, the majority of existing studies focus on reviews of tangible products sold on the well-known Amazon and eBay e-commerce platforms, or rely on proprietary single-firm data. To our knowledge, no study to date has conducted a comparative evaluation of the factors affecting digital review attitudes and persuasiveness in different cultural contexts. Finally, studies focusing on mobile environment, where path-to-purchase is localised, highly time-sensitive, and characterised by dynamic attitude formation and conversion (Limpf and Voorveld, 2015; Tode, 2012), are sparse and receiving increasing research scrutiny. To address these gaps, the current study reports the results of an experiment conducted in the USA and Ukraine that differ in their communication traditions (high-context vs. low-context; Hall, 1976). In particular, it investigates the roles of review valence and presentation mode, as well as perceived source similarity, in shaping message attitudes and persuasiveness on mobile-optimised restaurant review platforms (Yelp for the USA and Resto for Ukraine).

In the remainder of the paper, we describe prior relevant research findings, identify the gaps addressed by the current study, report the study’s methods, and discuss its
results. Further, managerial implications are derived from the findings, and directions for future research in the area are proposed.

2 Literature review and hypotheses development

2.1 Message characteristics

Existing research studies have investigated a number of attributes characterising digital messages for their roles in eWOM effects. Most prominently addressed among them include number, volume, order, and sequence of reviews (Park and Lee, 2008; Purnawirawan et al., 2012; Yang et al., 2012), star ratings (Cheung et al., 2009; Yang et al., 2012), emotional vs. factual presentation modes (Park and Lee, 2008), positive/negative framing (Park and Lee, 2009), positive to negative review ratios (Doh and Hwang, 2009; Purnawirawan et al., 2012), and message sidedness and extremeness (Cheung et al., 2009; Schlosser, 2005). However, the reported results lack consistency, possibly due to their context diversity, reflecting different product categories, cultures, and sample structures.

This study will focus on two message attributes of Yelp (Resto) restaurant reviews that have been found influential in other online review contexts: message valence and message sidedness. Message valence refers to the evaluative direction of a review, and can be positive (e.g. a praise) or negative (e.g. a complaint) (Cheung et al., 2009). Message sidedness or neutral distinguishes between one-sided reviews that present either positive only or negative only features of the product or service, and two-sided reviews that point out both positive and negative attributes (Purnawirawan et al., 2012; Wang et al., 2015). These characteristics are selected for the study because no consistency has been achieved in earlier studies regarding the direction of their impact on consumer attitudes and purchase intentions.

For example, Cheung and colleagues (2009) did not identify any valence or message-sidedness effects on review credibility in a Chinese consumer forum, while Park and Lee (2009) found that negative messages have greater effect on eWOM persuasion than positive messages in Korea. In the USA, Sen and Lerman (2007) used a national e-retailer data to show that product type moderates the effect of review valence. They found that review readers of negative utilitarian product reviews attributed them to product-related attributes and considered them more useful than positive product reviews. On the contrary, users of negative hedonic product reviews were more likely to attribute the negative opinions expressed to the reviewer’s internal (and not product-related) motives, finding these reviews less useful than positive reviews. Finally, Siering and Muntermann (2013) found positive review sentiment to increase helpfulness for search goods and negative review sentiment to increase perceived helpfulness of reviews about experience goods on the global Amazon.com platform. These findings tentatively suggest that, in addition to search vs. experience product distinction, the dominant cultural communication style may explain differential effects of message factors on message attitudes.

The variations in cultural communication styles are generally explained in the extant literature by Hall’s (1976) differentiation between low- and high-context communications. Low context communication, where individuals use explicit messages
to convey the meaning, is predominant in individualistic societies, focusing on self as a unique entity. High context communication, predominant in cultures emphasizing collectivism and a focus on self as embedded in group membership (Triandis, 1972), uses indirect and implicit messages, with meaning embedded in the sociocultural context. Based on these differences and earlier findings, we propose that explicit message characteristics of valence will represent salient drivers of review attitudes in the USA. It has been previously reported that Ukrainians place less emphasis on subjective emotional content compared to factual product specifications in online reviews (Pentina et al., 2015), potentially due to lower trust in weak tie connections explained by high-context communications characteristics. Based on the above literature and given the experiential nature of restaurants, we propose that positive reviews will elicit more positive attitudes in the USA, but there will be no significant effect of message valence on attitudes towards the review, including helpfulness, trustworthiness and credibility, among the Ukrainian audiences:

**H1a:** Positively valenced reviews will be perceived as more helpful than negatively valenced reviews in the USA;  

**H1b:** Positively valenced reviews will be perceived as more trustworthy than negatively valenced reviews in the USA;  

**H1c:** Positively valenced reviews will be perceived as more credible than negatively valenced reviews in the USA.

The role of message sidedness in shaping review attitudes has only been investigated in the USA context. The results reveal that two-sided reviews are considered more credible compared to one-sided positive or negative ratings only for moderate ratings, while the opposite is true for extreme ratings in the movie context (Schlosser, 2005). Similarly, in considering hotel-related review sets, Purnawirawan et al. (2012) showed that unbalanced (positive or negative) review sets are perceived as more useful than balanced sets. In addition, positive wrapping in positively balanced sets and negative wrapping in negatively balanced sets improved their perceived usefulness. Restaurants, like other experiential, hedonic services, cannot be evaluated before their consumption and, therefore, similarly to movies and hotel stays, are more likely to be selected based on other customers’ reviews. Consequently, we extrapolate earlier findings of the greater role of one-sided reviews in increasing perceptions of credibility, helpfulness and trustworthiness to the context of mobile restaurant reviews. Additionally, reading reviews on Yelp is likely to follow heuristic as opposed to systematic message processing route due to the limited time of exposure (Crano and Prislin, 2006). This processing route should favour more definitive (positive or negative) over more deliberate (providing pros and cons) evaluations. Therefore, based on the heuristic/systematic attitude formation model that implies greater effect on attitude formation by less complicated cues (Crano and Prislin, 2006), we propose:

**H2a:** One-sided (either positive or negative) reviews will be perceived as more helpful than two-sided (containing both pros and cons) reviews in the USA;  

**H2b:** One-sided (either positive or negative) reviews will be perceived as more trustworthy than two-sided (containing both pros and cons) reviews in the USA;
H2c: One-sided (either positive or negative) reviews will be perceived as more credible than two-sided (containing both pros and cons) reviews in the USA.

Consistent with the earlier argument regarding diminished role of explicit message characteristics in high-context cultures, and due to lack of extant supporting data, we do not hypothesise any significant effect of message sidedness on review attitudes in Ukraine.

2.2 Source characteristics

Traditionally, research in marketing has identified such source characteristics as trustworthiness, expertise and likeability (comprising similarity and attractiveness) as relevant for consumer decision-making. The reciprocal and social nature of digital review processes increases the ‘socialness’ perceptions of information exchange on the review platforms (Wang et al., 2007) and facilitates the application of social rules to the process of virtual communications (Moon, 2000; 2003). Based on the process of social identification (Tajfel and Turner, 1986), message cues can invoke cultural stereotypes and lead to categorising opinion sources into social groups. Membership in one’s social group may indicate internal similarity in tastes, opinions and views, and therefore increase the perceived trustworthiness, credibility and helpfulness of the review. Existing findings on the positive role of source similarity in marketing and sales literatures (Lichtenthal and Tellefsen, 2001) can potentially be extended to the digital opinion sharing situations. Such characteristics as shared attitudes, morality, personality traits, music preferences, background, and perceptions about life have been found to positively affect a sales outcome (Byrne, 1962; Byrne et al., 1966; Dion et al., 1995; Stotland et al., 1961; Taylor and Woodside, 1982).

A number of existing studies on digital reviews also incorporated perceptions of source (reviewer) characteristics as both drivers and moderators of digital review effectiveness. For instance, Li and Zhan (2011) considered combined effects of source and message characteristics on eWOM adoption using data from 1,793 Amazon Kindle global reviews. They identified source expertise along with message comprehensiveness, argument strength, and positive valence as significant influencers of eWOM adoption. Lee et al. (2011) conducted an experiment with 135 USA college students to compare the influence of online customer reviews (OCRs) to customer review quotes embedded in advertisement (OEA) on purchase intentions. They found that OCRs affect purchase intentions more than OEA only when customers have greater trust in online shopping malls, and this trust is transferred to individual OCR sources. Steffes and Burgee (2009) surveyed 482 USA college students about their use of RateMyProfessors.com site. Their findings show that perceived socio-demographic similarity to a weak-tie eWOM source was more important for eWOM message credibility than personal familiarity with a strong-tie source. Xia and Bechwati (2008) report that one’s perceived emotional resonance with the reviewer increases purchase intentions for experiential products, such as an airline trip, but not for search products, such as cameras, in the USA context. Carr and Hayes (2014) and Cheung et al. (2009) found that source credibility positively affected eWOM message credibility.

Since the context of this study is restaurant reviews that can be posted and read via mobile interface and are characterised by subjectivity and incognito authorships, users may not have sufficient ground to evaluate the reviewer’s expertise, trustworthiness, or
Message and source characteristics as drivers

attractiveness. Perceived similarity (of age, gender, income or lifestyle), however, can be inferred from a relatively short text of the review, and is the source factor selected for analysis in this study. Based on the above reports of source similarity effects on review attitudes in various cultural contexts, and on the notion that social stereotyping is more strongly pronounced in high-context cultures (De Luque et al., 2000), we propose that the perception of similarity with the reviewer will have a direct influence on review attitudes (main positive effect) and will intensify the influence of message valence on consumer attitudes towards the review (interaction effect for one-sided reviews) in both the USA and Ukraine. In the case of two-sided reviews, perceived source similarity may activate greater message elaboration (Pentina and Taylor, 2010; Wheeler et al., 2005), leading to greater appreciation of the message helpfulness, trustworthiness and credibility.

H3: Consumers who consider the reviewer similar to themselves will consider reviews more a) helpful, b) trustworthy, and c) credible than consumers who do not consider the reviewer similar to themselves;

H4: Consumers who consider the reviewer similar to themselves will consider positive (negative) reviews more (less) a) helpful, b) trustworthy, and c) credible than consumers who do not consider the reviewer similar to themselves;

H5: Consumers who consider the reviewer similar to themselves will consider two-sided reviews more a) helpful, b) trustworthy, and c) credible than consumers who do not consider the reviewer similar to themselves.

2.3 Review attitudes and persuasiveness

We extend the Theory of Reasoned Action (Ajzen, 1991) to suggest that consumer attitudes formed towards the digital peer review (i.e. perceptions of its helpfulness, trustworthiness and credibility) will affect its persuasiveness regardless of the cultural context (Bagozzi et al., 2014). Review helpfulness (or usefulness) has been commonly used by online opinion platforms to signal the quality of and satisfaction of users with the opinions posted by others. It has been defined as a ‘peer-generated … evaluation that facilitates the consumers decision process’ (Mudambi and Schuff, 2010, p.186). Given its role in consumer evaluation of available alternatives, review helpfulness (usefulness), as an attitude towards a review, can increase its persuasiveness towards the product/service purchase intentions (Xia and Bechwati, 2008). Therefore, it is reasonable to argue that:

H6a: Review helpfulness will positively affect its persuasiveness.

Owing to the increased amount of ‘planted’ or ‘paid-for’ reviews, posted at the request of the product sellers or their competitors, review trustworthiness and credibility have acquired greater importance in customer evaluations of eWOM. Review trustworthiness can impact the persuasiveness of the message by forming the emotional resonance with the message and/or the reviewer (Ohanian, 1991; Senecal and Nantel, 2004; Xia and Bechwati, 2008), generating reciprocation in the online conversation (Mangold et al., 2013), and reducing the risk perception (Kim and Choi, 2012). Furthermore, review trustworthiness serves as a critical factor of eWOM impact on decision making for opinion givers (López and Sicilia, 2014). Review credibility, in addition to the assessment of the reviewer reliability, also relies on the message’s factual arguments to
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exert influence on message persuasiveness (Cheung et al., 2009). As a result, we assume that:

*H6b: Review trustworthiness will positively affect its persuasiveness.*

*H6c: Review credibility will positively affect its persuasiveness.*

3 Method

3.1 Study context

The study compares the roles of source and message factors in affecting mobile review attitudes and persuasiveness in Ukraine and the USA. These countries were selected because of differences in economic and technological development, contrasts in the internet and social media penetration, as well as potential differences in dominant communication styles determined by their cultural contexts. Defined as “shared perceptions of the social environment” (Triandis, 1972), culture incorporates language, art, customs, habits, knowledge, morals, and beliefs acquired by a person in the process of socialisation (Tylor, 1958). It affects information processing and evaluation and has an influence on each individual’s self-construal and group identification (Markus and Kitayama, 1991). It also has an impact on the mechanism of cognitive stereotyping that leads to classification and evaluation of self and others in terms of personality traits and similarity, shaping trust, credibility, attitudes, and behaviours of individuals. People from different cultures choose different messages and channels to communicate (Kale, 1991).

Boasting a high level of education and literacy and classified as an emerging market by the World Trade Organization, the United Nations, and the World Bank, Ukraine is representative of other former Soviet countries in economic transition. With the GDP per capita estimated at $3,615 and the human development index (HDI) of 0.729, Ukraine is undergoing a prolonged, complex transition to a free-market, consumption-based economic model. While numerous business and marketing practices effective in western economies are being implemented by businesses in Ukraine, the low internet penetration (less than 25% of the population) prevents a mass scale use of internet marketing (Kostenko, 2011). However, the emerging middle class exhibits great interest and involvement with the internet as both informational and commercial communication channel. On the other hand, the USA is economically developed with GDP per capita at $48,112 and an HDI index of 0.937. With an internet penetration rate higher than 78%, 67% of US online adults use review sites (Pew Research Center, 2013). The two countries also exhibit sharp contrasts in cultural values. Ukraine can be characterised as a collectivistic culture with high-context communication style, and USA as an individualistic culture with predominantly low-context communication style. While existing findings confirm important role of culture in the frequency and intensity of traditional WOM (Liu, Furrer and Sudharshan, 2001; Money et al., 1998), very few studies to date have compared eWOM adoption patterns in different cultures. To the authors’ knowledge, no extant research investigates source and message factors in affecting mobile review attitudes and persuasiveness in Ukraine. In addition, no studies have examined the difference in these relationships between Ukraine and the USA.
3.2 Data collection and measures

In the USA, a between-subjects experiment was conducted among 201 (18–64 years old, 60% undergraduate, 60% female) students at a large public university. All parts of the experiment were conducted online. The participants were recruited via in-class announcements by five instructors and were offered extra-credit for participating in an online research experiment. An identical experiment was conducted in Ukraine, with the stimuli being adapted to the local Resto mobile review platform, and the survey questions – translated and back-translated by different interpreters to ensure measurement invariance. The participants were recruited in two stages: first, students of Kharkiv University were invited via in-class announcements by their course instructor and provided with the link to online research experiment. Second, the students were encouraged to forward the link to their personal networks in order to reach broader audience. The demographic profile of 159 participants whose responses were retained after data cleaning was similar to that of the USA sample (20–65 years old, 52% undergraduate students, 49% female).

All respondents were randomly assigned to one of the 3 valence/sidedness groups (positive-negative-two-sided). At the beginning, demographic variables were measured, and involvement and prior experience with online reviews were assessed by asking them to agree or disagree (on a 1–5 scale) with the following statements: “I usually read online reviews written by other customers when making a shopping decision” (USA: M=3.64, sd=1.16; Ukraine: M=4.4, sd=0.49) and “I usually rely on other customers’ online reviews to make my shopping choices” (USA: M=3.28, sd=1.15; Ukraine: M=4.03, sd=0.49).

Then, each respondent was asked to carefully read a Yelp (Resto) restaurant review and answer questions about it. The review versions combined sections of authentic Yelp (Resto) reviews of the same tea room restaurant in San Francisco (Kiev) to reflect different message valences and sidedness. For example, the positively-valenced review contained the following phrases: “I’ve never had a bad experience at Samovar”, “I always find it to be an exceptionally reliable spot to invite friends”, “superb hospitality on top of excellent food and great ambiance”, etc. The negatively-valenced review contained phrases such as “I don’t think the staff here know how to prepare the teas well”, “for the prices that Samovar charges, their service is horrible”, etc. The two-sided review had the following statements included: “PROs – you feel very comfortable here, – lots of different types of seating available, – the tea and food were brought to us at lightning speed...”, “CONs – I was pretty unimpressed once I tasted everything. - I wish they had more traditional British teafare”, etc. Several pretests with different groups of students in each country were conducted to arrive at meaningful stimuli versions.

Following the experimental treatment, source similarity (Chang, 2011) and the outcome variables of review helpfulness (Purnawirawan, Pelsmacker and Dens, 2012), trustworthiness (Ohanian, 1991), credibility (Cheung et al., 2009), and persuasiveness (Zhang et al., 2010) were measured (Appendix A). The mean of each multi-item scale was calculated, with the internal consistency assessed using Chronbach’s alpha (see Appendix), before employing the averaged values for the subsequent analysis.
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4 Results

The participants in all three conditions had similar experiences with digital reviews (USA: $F=1.13, p=.344$; Ukraine: $F=1.63, p=.169$) and did not differ in gender (USA: $\chi^2=2.82, p=.685$; Ukraine: $\chi^2=1.83, p=.401$), age (USA: $\chi^2=9.05, p=.399$; Ukraine: $\chi^2=7.57, p=.671$), or household income (USA: $\chi^2=8.38, p=.755$; Ukraine $\chi^2=2.28, p=.685$). Manipulation of the message valence/sidedness was measured with three one-way ANOVAs, which showed statistically significant differences among the valence/sidedness groups in responses to the review valence questions and assessment of its potential star rating (Table 1).

### Table 1 Manipulation checks

<table>
<thead>
<tr>
<th>Question</th>
<th>Mean (out of 5)</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>Ukr</td>
<td>USA</td>
<td>Ukr</td>
</tr>
<tr>
<td>Do you think this review is positive?</td>
<td>3.09</td>
<td>3.00</td>
<td>98.66</td>
</tr>
<tr>
<td>Positive Group</td>
<td>4.33</td>
<td>4.27</td>
<td>.000</td>
</tr>
<tr>
<td>Negative Group</td>
<td>2.16</td>
<td>1.95</td>
<td>.000</td>
</tr>
<tr>
<td>Two-sided Group</td>
<td>2.86</td>
<td>2.68</td>
<td>.000</td>
</tr>
<tr>
<td>Do you think this review is negative?</td>
<td>3.06</td>
<td>2.99</td>
<td>71.92</td>
</tr>
<tr>
<td>Positive Group</td>
<td>1.83</td>
<td>1.72</td>
<td>.000</td>
</tr>
<tr>
<td>Negative Group</td>
<td>3.88</td>
<td>3.94</td>
<td>.002</td>
</tr>
<tr>
<td>Two-sided Group</td>
<td>3.31</td>
<td>3.36</td>
<td>.002</td>
</tr>
<tr>
<td>In your opinion what star rating did the reviewer give to the restaurant?</td>
<td>3.14</td>
<td>3.23</td>
<td>110.1</td>
</tr>
<tr>
<td>Positive Group</td>
<td>4.43</td>
<td>4.51</td>
<td>.000</td>
</tr>
<tr>
<td>Negative Group</td>
<td>2.37</td>
<td>2.30</td>
<td>.006</td>
</tr>
<tr>
<td>Two-sided Group</td>
<td>2.80</td>
<td>2.82</td>
<td>.006</td>
</tr>
</tbody>
</table>

Three one-way ANOVAs supported H1a-c (Table 2). American respondents in the positive message condition found the review more helpful ($M=3.8$) than respondents in the negative ($M=3.45$) or two-sided ($M=3.21$) conditions ($F=10.459, p<.001$). Similarly, those in the positive condition indicated that the review was more trustworthy ($M=3.83$) than those who were exposed to negative ($M=3.35$) or two-sided ($M=3.16$) messages ($F=11.31, p<.001$). Review credibility was also significantly higher in the positive ($M=3.89$) message condition than in the negative ($M=3.37$) and two-sided ($M=3.09$) groups ($F=14.746, p<.001$). H2a-c were only partially supported, since post-hoc tests with Sheffe coefficients did not confirm significant differences between negative and two-sided message groups in review helpfulness ($p=.19$), trustworthiness ($p=.459$), or credibility ($p=.196$) in the USA sample. Therefore, only positive one-sided message positively affected attitudes towards the review. As expected, no significant effects of message characteristics on its perceived helpfulness ($F=1.3, p=.276$), trustworthiness ($F=1.55, p=.216$), or credibility ($F=2.76, p=.759$) were found in the Ukrainian sample. Table 2 provides mean values and standard deviations of the hypothesised review attitude variables for each experimental condition in each country. A post-hoc test compared American and Ukrainian respondents across all three review conditions on the perceived
average helpfulness, trustworthiness and credibility of the message. While no significant difference in helpfulness ($F=1.827, p=.177$) was found, the results showed that regardless of message valence/sidedness, Ukrainians considered all reviews less trustworthy ($F=31.132, p<.001$) and less credible ($F=6.854, p=.009$) than Americans.

### Table 2

<table>
<thead>
<tr>
<th>Valence/Sidedness Condition</th>
<th>Dependent Variables</th>
<th>Mean (SD) USA</th>
<th>Mean (SD) Ukraine</th>
<th>$F$</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Review Conditions</td>
<td>Review Helpfulness</td>
<td>3.43 (3.32)</td>
<td></td>
<td>1.827</td>
<td>.177</td>
</tr>
<tr>
<td></td>
<td>Review Trustworthiness</td>
<td>3.39 (2.86)</td>
<td></td>
<td>31.132</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Review Credibility</td>
<td>3.38 (3.11)</td>
<td></td>
<td>6.854</td>
<td>.009</td>
</tr>
<tr>
<td>Positive Review Condition</td>
<td>Review Helpfulness</td>
<td>3.80 (.68)</td>
<td>3.43 (.74)</td>
<td>7.809</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Review Trustworthiness</td>
<td>3.83 (.82)</td>
<td>2.86 (.91)</td>
<td>27.883</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Review Credibility</td>
<td>3.89 (.86)</td>
<td>3.14 (.95)</td>
<td>19.580</td>
<td>.000</td>
</tr>
<tr>
<td>Negative Review Condition</td>
<td>Review Helpfulness</td>
<td>3.45 (.82)</td>
<td>3.21 (.85)</td>
<td>2.120</td>
<td>.149</td>
</tr>
<tr>
<td></td>
<td>Review Trustworthiness</td>
<td>3.35 (.81)</td>
<td>2.86 (.92)</td>
<td>7.850</td>
<td>.006</td>
</tr>
<tr>
<td></td>
<td>Review Credibility</td>
<td>3.37 (.83)</td>
<td>3.16 (.99)</td>
<td>1.321</td>
<td>.253</td>
</tr>
<tr>
<td>Two-sided Review Condition</td>
<td>Review Helpfulness</td>
<td>3.21 (.76)</td>
<td>3.27 (.67)</td>
<td>.212</td>
<td>.646</td>
</tr>
<tr>
<td></td>
<td>Review Trustworthiness</td>
<td>3.16 (.85)</td>
<td>2.67 (.81)</td>
<td>9.842</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td>Review Credibility</td>
<td>3.09 (.88)</td>
<td>3.02 (.91)</td>
<td>.182</td>
<td>.670</td>
</tr>
</tbody>
</table>

The role of source similarity in affecting review attitudes was measured by six two-way ANOVAs that included message valence/sidedness as the independent variable and source similarity as a covariate (Table 3). The results confirmed the main positive effect of perceived similarity on review helpfulness, trustworthiness, and credibility in all three conditions in both the USA and Ukrainian samples (H3a–c supported). Interestingly, while no interaction effects of similarity with message valence/sidedness were identified for the US sample (H4a–c and H5a–c not supported), source similarity interacted with message valence in affecting review trustworthiness and credibility in Ukraine. The results showed that positive message from a similar reviewer was more trustworthy ($M=3.77$, $sd=.73$) and credible ($M=3.93$, $sd=.5$) than from a dissimilar reviewer ($M_{\text{Tru}}=2.71$, $sd=.84$; $M_{\text{Cred}}=2.74$, $sd=.92$), and that a two-sided message from a similar reviewer was more credible ($M=4$, $sd=.01$) than from a dissimilar reviewer ($M=2.93$, $sd=.96$). No source similarity – message characteristics interaction was identified for perceived review helpfulness in the Ukrainian sample.

The proposed influence of attitudes towards the review on its persuasiveness (H6a–c) was measured by two linear regressions (Table 4). The potential for multicollinearity among the three independent variables was ruled out by the obtained Variance Inflation Factor values (all below 2.33), and the bivariate correlation coefficient values (all below .577) (Hair, 2006). In support of H6a and H6b, review helpfulness ($\beta=.428$; $p<.001$) and credibility ($\beta=.205$; $p=.011$) were found to positively affect perceived review persuasiveness, with trustworthiness showing marginally positive influence ($\beta=.136$; $p=.096$) in the USA. In Ukraine, only review helpfulness ($\beta=.427$; $p<.001$) positively influence persuasiveness while credibility ($\beta=.166$; $p=.076$) marginally impacted persuasiveness, with trustworthiness not demonstrating any significant influence.
Table 3  The role of source similarity on consumer review attitudes

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Independent Variables</th>
<th>Adj. R-sq</th>
<th>F</th>
<th>Sig.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>USA</td>
<td>Ukr</td>
<td>USA</td>
</tr>
<tr>
<td>Review helpfulness</td>
<td>Message Valence/Sidedness</td>
<td>.211</td>
<td>.179</td>
<td>5.398</td>
</tr>
<tr>
<td></td>
<td>Source Similarity</td>
<td>7.88</td>
<td>.207</td>
<td>.022</td>
</tr>
<tr>
<td></td>
<td>Message Valence/Sidedness *</td>
<td>9.575</td>
<td>10.137</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Source Similarity</td>
<td>1.048</td>
<td>1.226</td>
<td>.396</td>
</tr>
<tr>
<td>Review trustworthiness</td>
<td>Message Valence/Sidedness</td>
<td>.17</td>
<td>.087</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td>Source Similarity</td>
<td>4.274</td>
<td>.799</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td>Message Valence/Sidedness *</td>
<td>5.963</td>
<td>2.723</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Source Similarity</td>
<td>1.281</td>
<td>2.161</td>
<td>.268</td>
</tr>
<tr>
<td>Review credibility</td>
<td>Message Valence/Sidedness</td>
<td>.215</td>
<td>.189</td>
<td>5.543</td>
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<tr>
<td></td>
<td>Source Similarity</td>
<td>8.883</td>
<td>.642</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Message Valence/Sidedness *</td>
<td>7.141</td>
<td>7.292</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Source Similarity</td>
<td>.879</td>
<td>4.402</td>
<td>.512</td>
</tr>
</tbody>
</table>

Table 4  The influence of attitudes on review persuasiveness

<table>
<thead>
<tr>
<th>Dependent Variable: Review Persuasiveness</th>
<th>USA</th>
<th>Ukraine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Helpfulness</td>
<td>.428***</td>
<td>.427***</td>
</tr>
<tr>
<td>Review Trustworthiness</td>
<td>.136*</td>
<td>.082</td>
</tr>
<tr>
<td>Review Credibility</td>
<td>.205**</td>
<td>.166*</td>
</tr>
<tr>
<td>F</td>
<td>52.629***</td>
<td>24.421***</td>
</tr>
<tr>
<td>Adj. R-sq</td>
<td>.440</td>
<td>.319</td>
</tr>
</tbody>
</table>

Note: ***p<0.01; **p<0.05; *p<0.1.

5  Discussion and future research

The results reveal significant differences in the consumer path to adopting digital reviews in low-context vs. high-context cultures. In low-context communication environment (USA), the importance of positive message valence (positivity bias) is evident for increasing the perceptions of review helpfulness, trustworthiness and credibility compared to negative message valence, or two-sided message framing (incorporating both pros and cons). This finding is consistent with some previous research on e-WOM (Nekmat and Gower, 2012; Wang et al., 2012; Ho-Dac et al., 2013) and contradicts the negativity bias phenomenon reported by other authors (e.g. Park and Lee, 2009). Given the experiential and hedonic context of restaurant reviews, the study appears to provide support to the moderating role of product/service type, whereas negative reviews could be more influential for utilitarian, and positive reviews more impactful for hedonic products (Chu et al., 2015; Fang, 2014; Sen and Lerman, 2007). However, this tentative suggestion should be tested in future studies. The less importance of two-sided reviews
Message and source characteristics as drivers

compared to positive reviews for message trustworthiness, credibility, and helpfulness is an interesting finding that also deserves further attention. While supporting some previous reports (Schlosser, 2005; Purnawirawan et al., 2012), this result may mean that USA consumers turn to digital review sites for confirmation of pre-existing intentions rather than for objective unbiased information. If confirmed, the implication of this tendency may be to change the review templates offered by review platforms and allow reviewers a less structured approach to expressing their opinions (e.g. without providing dedicated space for pros or cons). Another plausible explanation is that Yelp review readers mainly access the service via mobile interface that presupposes shorter time for information processing. Under such conditions, purely positive or negative opinions are more diagnostic and appreciated, facilitating easier decision-making via peripheral processing route, compared to more nuanced two-sided reviews characterised by greater ambivalence and requiring greater elaboration (Newby-Clark et al., 2002). An interesting future research opportunity may be to consider the role of differences in user elaboration likelihood between one-sided and two-sided reviews in mobile context.

In the high-context communication environment of Ukraine, which is transitioning from tribal (with loyalty limited to close in-groups) to individualistic culture, neither message valence nor its sidedness appear to impact consumer attitudes towards a restaurant review. These results, together with the generally lower perceptions of review trustworthiness and credibility in all valence and sidedness conditions, may reflect the cultural tendency to not take information from weak tie networks for granted. This supposition is in line with earlier research reporting that Ukrainians place greater emphasis on factual product-performance related aspect of eWOM as opposed to subjective emotional content (Pentina et al., 2015). It is possible that more tribal and closed social structure discourages trust in the subjective opinions of unknown others that the restaurant reviews often contain. This tendency may also be exacerbated by the generally low penetration of mobile commerce (around 6%) in the country (Ecosglobal, 2015).

In terms of source characteristics, perceived similarity with the reviewer positively affected attitudes towards the review (trustworthiness, credibility, and helpfulness) in all conditions (positive, negative, and two-sided) in both cultural contexts. This finding underscores the importance of exposing consumers to reviews written by those who are similar to them, possibly via offering them an opportunity to filter the reviews based on readers’ demographics or interests. Contrary to expectations, perceived source similarity did not intensify the effect of review valence or sidedness in the low-context communication culture (USA). This lack of support for the moderating role of source similarity at the attitude forming stage invites researchers to consider its impact at later stages of the shopping process, specifically focusing on the message persuasiveness – buying intention links (Limpf and Voorveld, 2015). Interestingly, in the high-context communication environment (Ukraine), in addition to its direct positive effect on review attitudes, source similarity brought forth the roles of valence and sidedness in shaping review attitudes. Specifically, positive and two-sided messages from similar sources significantly improved customers’ attitudes towards the reviews (supporting the positivity bias noted earlier in the USA sample). The more prominent role of perceived source similarity in the high-context communication setting may be indicative of greater importance of social identification for e-WOM adoption in cultures characterised by more tribal social structure. If confirmed in further studies, this result highlights the importance of culture for designing digital marketing communication strategies and may
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initiate a research stream investigating the functioning of socially-based factors in perceptions of persuasive messages.

The perceived helpfulness and credibility of reviews were found to increase their persuasiveness in both countries, supporting previously established link between credibility and persuasiveness (see, for example, Kim and Choi, 2012). The positive effect of perceived review trustworthiness on its persuasiveness, however, did not reach statistical significance in either sample. This finding may reflect somewhat lower importance of emotional resonance with the message compared to more factual and reliable information contained in the message. It may also suggest that digital (and mobile) environment characterised by low amount of social cues may make perceived trustworthiness a less relevant predictor of review persuasiveness. Finally, although the bivariate correlations among the three attitude measures were all below .577, this finding may be sample-specific and should be re-confirmed in future studies.

6 Conclusion, limitations and managerial implications

The current study is among the first to propose and test cultural differences in the mechanism of eWOM adoption in the context of mobile restaurant reviews platforms that bridge internet-based and location-based digital content. Specifically, it considered the differences in digital review persuasion mechanisms in the USA (a developed economy with low-context communication culture and individualistic values) and Ukraine (a developing country with mainly high-context communications and tribal family-centred values). It is also among the first to evaluate the roles of message valence and sidedness, as well as source similarity in the process of shaping message attitudes and persuasiveness in the context of mobile reviews platforms. The study also evaluates the moderating effect of perceived source similarity on the relationships between message characteristics and attitudinal variables. Our results disconfirm the negativity bias reported in previous studies and indicate that in low-context cultures positive reviews are perceived as more trustworthy, credible, and helpful than negative or two-sided. The same relationships are observed in high-context cultures only under conditions of perceived source similarity. Review helpfulness and credibility, in turn, positively impact its persuasiveness in both high- and low-context communication traditions.

Participants of the study were exposed to experimental manipulations of a single mobile review, which may limit the generalisability of the results to the real context, where consumers are usually exposed to a whole range of reviews. However, this design enabled us to isolate the variables of interest without introducing too much external ‘noise’. The convenience samples, comprised of students and their networks, also somewhat limit the generalisability of the results. However, demographic sample composition reflects mobile review user profiles in both countries and thus, is expected to represent the audience of interest.

Managerially, our results suggest that brands should strengthen their efforts to encourage satisfied consumers to share their opinions, since positive reviews are perceived as more helpful, trustworthy and credible, eventually leading to greater persuasiveness. Introducing a mechanism to expose mobile opinion seekers to reviews written by consumers similar to them in lifestyles, interests and opinions is especially important for brands operating in high-context cultures. Finally, differentiating between utilitarian and hedonic (or search and experiential) product and service categories in
Message and source characteristics as drivers

designing review templates may also be a useful tactic. Our research appears to support the more important role of positive vs. two-sided reviews for hedonic/experiential categories in low-context cultures, prompting review platforms for services, such as Yelp, to encourage less structured reviews, without prompting to provide both negative and positive arguments. Providing review filtering options based on reviewer demographic, geographic, and socio-economic data may also prove useful when personalising review consumption experiences and offering reviews from ‘similar’ reviewers first.

Acknowledgement

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References


Message and source characteristics as drivers


Message and source characteristics as drivers


Appendix A: Measurement scales used in the study and their reliabilities

**Source Similarity** (Chang, 2011): 1 (Strongly Disagree) to 5 (Strongly Agree)
(Cronbach’s alpha USA = .89; Ukraine = .86)
- The reviewer is similar to me
- The reviewer and I are alike
- The reviewer is someone like me
- The reviewer is similar to a friend of mine

**Review Trustworthiness** (Ohanian, 1991): 1 (Strongly Disagree) to 5 (Strongly Agree)
(Cronbach’s alpha USA = .79; Ukraine = .70)
- The review is Dependable
- The review is Honest
- The review is Sincere
- The review is Trustworthy

**Review Helpfulness** (Purnawirawan et al., 2012): 1 (Strongly Disagree) to 5 (Strongly Agree)
(Cronbach’s alpha USA = .77; Ukraine = .71)
- I found the review useful
- It helped me to shape my attitude toward the restaurant
- It can be helpful in my decision regarding this restaurant
- Information in this review contributed to my knowledge of the restaurant

**Review Credibility** (Cheung et al., 2009): 1 (Strongly Disagree) to 5 (Strongly Agree)
(Cronbach’s alpha USA = .80; Ukraine = .72)
- The review is Factual
- The review is Accurate
- The review is Credible

**Review Persuasiveness** (Zhang et al., 2010): 1 (Strongly Disagree) to 5 (Strongly Agree)
(Cronbach’s alpha USA = .91; Ukraine = .87)
- The review is Persuasive
- The review is Convincing