The effects of online consumer reviews on impulse buying behavior toward trust of the live streaming platform and interactivity in the context of live streaming

Lin Liu¹,a,*

¹Taishan University, Tai’an, Shandong, 271000, China  
²sophiachina12@126.com  
*Corresponding author

Abstract: The objective of the study is to advance the understanding of how online consumer review is associated with impulse buying behavior in the context of live streaming. For this, a theoretical model is developed which includes the relationships among online consumer review, interactivity and the trust of the live streaming platform, and impulse buying behavior. This model enhances the understanding of impulse buying behavior by including relationships mediated by interactivity as well as relationships moderated by the trust of the live streaming platform between online consumer review and impulse buying behavior. The results reveal that interactivity has a partial mediator role between comment quantity, comment credibility and timeliness of comment and impulse buying behavior. Moreover, the trust of the live streaming platform moderates the links between comment valence, comment quantity and impulse buying behavior.

Keywords: online consumer reviews; impulse buying behavior; live streaming

1. Introduction

Live streaming became a viral sensation due to its unique features to sell the meticulously selected merchandise by deploying a real-time live including detailed product demonstrations, answer various product-related questions raised by customers via real-time live streaming and proffer highly personalized service and shopping experience for customers at any given time and anywhere, along with another factor that can’t be neglected is the cause of the pandemic. It has severely restricted the normal operation of offline physical stores because of the pandemic, which has also imposed Chinese consumers to convert their buying ways. Live streaming as a new channel just creates a scene that is closest to offline shopping and the receiving way that is most suitable for home shopping.

Research on live streaming has indicated that the characteristics of live streaming are credited as live streaming shopping engagement factors determining customer purchase intention (Yuan Sun et al., 2019)⁴. In view of the widespread use of live streaming and the pervasive penetration of online shopping activities. It is vital to confirm factors influencing impulse buying during live streaming considering that consumers have the latent ability of impulse shopping in terms of the “see-now-buy-now” consumer psychology. Furthermore, a study from Pei-San Lo et al., (2022) has proposed that parasocial interaction, vicarious experience, scarcity persuasion, and price perception can positively contribute to impulsive buying behavior via cognitive and affective reactions in live streaming environment⁵.

As a dynamic form of expression, online consumer review (OCR) is an indispensable reference for potential consumers when making purchase decisions in electronic commerce. Although the extant research has advanced the sufficient understanding of the impact of consumer review in the context of online group-buying (Dong Hong Zhu et al., 2019)⁶. There has been little recent exploratory research that systematically investigates the effect of OCR in live streaming situation and even less recent study focusing on exploring the relationship between OCR and impulse buying behavior toward trust of the live streaming platform and interactivity from this perspective. On that account, it is vitally important to analyse the antecedents of OCR amid live streaming commerce owing to these insights that can broaden the know-how of live streaming merchants on attitude and behavior towards consumers to polish up running the live streaming business. The objective of this study was to yield a novel perspective to
examine the problem of OCR in promoting consumers' impulse buying, which further fuels the formation of a detailed mechanism for the relationship between the above-mentioned factors by including interactivity as an intermediary factor, and the trust of the live streaming platform as a moderator.

2. Theoretical background

2.1 Concept of impulsive buying behavior

Impulsive buying behavior as the focus of concern has always been researched by lots of scholars. It's widely assumed that impulsive buying has been condemned as the tendency of consumers to purchase spontaneously, thoughtlessly, immediately and dynamically (Joann Peck et al., 2006)\[4\]. Compared with offline shopping, (N. Donthu & A. Garcia 1999) have mentioned that consumers will be more impulsive when shopping online due to the characteristics of online shopping without time and space constraints.

Moreover, the traditional online shopping platform does not have a situation where consumers and sellers (live streamers) are similar to "face-to-face communication", nor does it have a scenario where multiple consumers can interact in real time. When consumers watch the live streaming, they can speak on the screen to influence the behavior of the live streamer to a certain extent (for example, let the live streamer show the goods in all directions, try the goods in person, etc.), and can interact with other consumers in real time. This user stickiness generated by the direct participation of users is likely to affect the impulsive purchase of consumers.

2.2 Online consumer review (OCR)

OCR refers to the evaluation information created and released by individuals after the consumer purchases the product about the functional characteristics, sensory feelings, use experience, etc. As an effective communication channel, the extant studies have noted that OCR paves the way for consumers to voice their respective suggestions and views on products and services, and further spurs consumers to shop online (Gu et al., 2012)\[5\].

Recently, (Chen wendong et al., 2022) enunciated that OCR moderated the negative impact of user experience on repeat purchase behavior by exploiting online music platforms\[6\]. As mentioned by several scholars including (Guo yiqi et al., 2022)\[7\], it is asserted that the number of uploaded images and similarity between images and text in online reviews have a positive impact on customer satisfaction, while the length of online review text has a negative impact on customer satisfaction through research on online hotel reservation platforms. With the rapid development of e-commerce platforms in China, online social platforms have a well-developed provenance of insight for studying consumer buying behavior, although has rarely been investigated in live streaming research.

3. Hypotheses development

3.1 The impact of OCR on impulse buying behavior

According to the 2022 China Digital Economy Theme Report, the scale of China's digital economy has reached 45.5 trillion yuan, with a year-on-year nominal growth of 16.2%, ranking second in the world and becoming a new engine of economic growth. A cohort of Chinese consumers completely immersed in the digital era who tend to see reviews of the products they buy online. Before deciding to buy, many consumers prefer to view other consumers' opinions through online reviews. Past studies (Dellarocas 2003) have noted that online consumer review (OCR) will be conducive to instruct potential consumers and eliminate uncertainties. Realizing the magnitude of OCR\[8\], (Li Jiaxing et al., 2022) primarily inspected the effects of JD.COM and Taobao on the number of online reviews and review time individually and further demonstrate the positive impact of OCR on consumers' online purchases to by employing statistical analysis and mathematical modeling\[9\].

In addition, in the terms of the effect consumer's impulsive purchase intention on OCR, (Yang Shuai 2022) argued that the higher the consensus of online reviews\[10\], the more likely it is to trigger consumers' impulse buying intentions with data collected from a social platform for information generation and sharing based on UGC mode. This work also complements the results of (Delia Vazquez et al.,2020) in that it defines that audience consumers who comment on social media are more likely to have impulsive buying intentions as their higher levels of involvement experienced\[11\]. Jiménez(2013) has given an apt
description of comment quality and noted that the higher comment quality, the more likely it is to give rise to consumers to purchase impulsively. Thus following the findings of past studies on OCR and consumer buying behavior, the current study introduces the following hypotheses on the relationships between comment valence, comment quality, comment quantity, comment credibility, and timeliness of comments presented in online review comments and impulse buying behavior.

H1: In the context of live streaming, comment valence has the notable positive impact on impulse buying behavior.

H2: In the context of live streaming, comment quality has the notable positive impact on impulse buying behavior.

H3: In the context of live streaming, comment quantity has the notable positive impact on impulse buying behavior.

H4: In the context of live streaming, comment credibility has the notable positive impact on impulse buying behavior.

H5: In the context of live streaming, timeliness of comments has the notable positive impact on impulse buying behavior.

3.2 The impact of interactivity on impulse buying behavior

Interactivity is the most basic way of communication between live streamers and consumers, as well as between consumers during the live streaming process, including reviews from buyers' and responses from sellers. As one of the influencing factors of consumer buying behavior in e-commerce live streaming, interactivity has been concerned by some scholars. Fang Yuejiao et al. (2022) focused on the danmaku interaction in the context of e-commerce live streaming shopping. They collected 389 samples to verify the conceptual model for tackling consumer compulsive buying. Given the results of the conceptual model, the effect of danmaku interaction on impulsive buying is thoroughly tested. In the context of analyzing guest reviews and host responses on Airbnb, for instance, the shaping of consumers' purchase intention is facilitated by the high active and frequent seller-buyer interactivity, (Dongyeon Kim et al., 2021) have validated the quality aspects of online reviews and the quantity aspect of online reviews as the determinant factors in driving purchase decision.

The extant literature provides inadequate knowledge about the extent to which the theoretical mediating mechanism underlie the impact of interactivity on impulsive buying behavior among consumers who watch live streaming. As a consequence, we intend to explore the role of interactivity as a possible mediator for any surveyed influences. Based on this, the proposed hypotheses are stated as follows:

H6: In the context of live streaming, interactivity is positively associated with impulse buying behavior.

H7: In the context of live streaming, interactivity has a mediator role between comment valence and impulse buying behavior.

H8: In the context of live streaming, interactivity has a mediator role between comment quality and impulse buying behavior.

H9: In the context of live streaming, interactivity has a mediator role between comment quantity and impulse buying behavior.

H10: In the context of live streaming, interactivity has a mediator role between comment credibility and impulse buying behavior.

H11: In the context of live streaming, interactivity has a mediator role between timeliness of comments and impulse buying behavior.

3.3 The trust of the live streaming platform and impulse buying behavior

Trust is conducive to dwindling consumers' uncertainty about products and their risk perception of online transactions, prompting them to participate in trust-based behaviors, such as the occurrence of purchasing behaviors (McKnight et al., 2002). Trust is particularly important in uncertain environments, such as online commerce environments. The study in the consumer behavior literature is the work by (Zhang Peng et al., 2019) that employed a mechanism, which demonstrated the influence of
consumers’ trust on compulsive buying via network community. In addition,[16] (Xu Xuchu et al., 2022) have attempted to construct a live streaming trust mechanism for addressing a trust evaluation system under live streaming circumstance[17]. Among the influencing factors they considered, market logic, emotional logic, and institutional logic are the major factors affecting consumer trust.

Compared to traditional e-commerce and offline consumption models, the live streaming mode has its typical characteristics. The interaction and online comments between live streamers and consumers, as well as between consumers and consumers during the live streaming room, have greatly alleviated the problem of information asymmetry between consumers and live streaming merchants to some extent. The obtained consumer stickiness and loyalty are unmatched by traditional online and offline consumption (Xu Xuchu et al., 2022)[17]. To date, there are mainly two types of live streaming platforms. One is the flow-oriented platform led by people, such as Weibo, Tiktok, Kwai, etc., and the other is the transaction-oriented platform led by goods, such as Taobao, Tmall, Pinduoduo, etc. There is very little research on impulsive buying in consumers’ trust in platforms. While watching live streaming, what type of platform consumers trust can affect their impulsive buying behavior, and what is the relationship between OCR and impulsive buying behavior. These are the issues we need to address.

In this regard, live streaming merchants need an in-depth understanding of the role of the trust of the live streaming platform in OCR and impulse buying behavior. In other words, we propose a more complex conceptualization of how the trust of the live streaming platform moderates the effect of OCR on impulse buying behavior under live streaming environment. In accordance with this view and the foregoing discussion, this study models the trust of the live streaming platform as a moderator of impulse buying behavior and forms the following hypotheses:

H12: In the context of live streaming, the trust of the live streaming platform has the notable positive impact on impulse buying behavior.

H13: In the context of live streaming, the trust of the live streaming platform has a moderator role between comment valence and impulse buying behavior.

H14: In the context of live streaming, the trust of the live streaming platform has a moderator role between comment quality and impulse buying behavior.

H15: In the context of live streaming, the trust of the live streaming platform has a moderator role between comment quantity and impulse buying behavior.

H16: In the context of live streaming, the trust of the live streaming platform has a moderator role between comment credibility and impulse buying behavior.

H17: In the context of live streaming, the trust of the live streaming platform has a moderator role between timeliness of comments and impulse buying behavior.

3.4 Research model

The aim of this research is to examine the impact of OCR on interactivity, the trust of the live streaming platform and purchase intention impulse buying behavior in the live streaming scenario, based on the foregoing hypotheses. Moreover, interactivity is set as a mediator variable and the trust of the live streaming platform is set as a moderator variable. Therefore, the research model of this study is set as shown in Fig. 1.

![Conceptual research model](image.png)
4. Data analysis and results

4.1 Survey administration

A sample of 496 respondents representative of the Chinese population (i.e., in terms of gender, age, qualification, occupation, education and income) finished the online questionnaire. This study collected data notably relevant to live streaming on social media. In order to gain a large sample and make sure the participation of potential surrounding respondents, the snowball method was put to use. All structural measurements have been employed previous studies and have been modified based on existing scales and multiple validation projects. In the light of suggestions from scholars and professionals, the measurement method has been modified to make the context consistent.

4.2 Assessment of measurement model

<table>
<thead>
<tr>
<th>Table 1: Results of Reliability and Validity Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructs</td>
</tr>
<tr>
<td>CV</td>
</tr>
<tr>
<td>CQ</td>
</tr>
<tr>
<td>CA</td>
</tr>
<tr>
<td>CC</td>
</tr>
<tr>
<td>CT</td>
</tr>
<tr>
<td>IN</td>
</tr>
<tr>
<td>TP</td>
</tr>
<tr>
<td>IB</td>
</tr>
</tbody>
</table>

Table 2: Mediation effect test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1 IB</th>
<th>Model 2 IN</th>
<th>Model 3 IB</th>
<th>Effect</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>CV</td>
<td>0.196***</td>
<td>0.061</td>
<td>0.188***</td>
<td>0.061</td>
<td>0.188***</td>
</tr>
<tr>
<td>CQ</td>
<td>0.140***</td>
<td>0.014***</td>
<td>0.082</td>
<td>0.023</td>
<td>16.3%</td>
</tr>
<tr>
<td>CA</td>
<td>0.141***</td>
<td>0.029</td>
<td>0.186***</td>
<td>0.011</td>
<td>0.019</td>
</tr>
<tr>
<td>CC</td>
<td>0.139***</td>
<td>0.014***</td>
<td>0.117***</td>
<td>0.059</td>
<td>42.4%</td>
</tr>
<tr>
<td>CT</td>
<td>0.296***</td>
<td>0.231***</td>
<td>0.256***</td>
<td>0.08</td>
<td>27%</td>
</tr>
<tr>
<td>IN</td>
<td>0.121***</td>
<td>0.068***</td>
<td>0.124***</td>
<td>0.079</td>
<td>0.079</td>
</tr>
</tbody>
</table>

Table 3: Testing the theoretical model by hierarchical moderated regression

<table>
<thead>
<tr>
<th>Main Effects</th>
<th>Model 1 IB</th>
<th>Model 2 IN</th>
<th>Model 3 IB</th>
<th>Model 4 IB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>-0.976</td>
<td>-0.107**</td>
<td>-0.096</td>
<td>-0.091*</td>
</tr>
<tr>
<td>Age</td>
<td>0.171***</td>
<td>0.010***</td>
<td>0.068*</td>
<td>0.059</td>
</tr>
<tr>
<td>Education</td>
<td>0.104**</td>
<td>0.029</td>
<td>0.011</td>
<td>0.017</td>
</tr>
<tr>
<td>Monthly income</td>
<td>0.079</td>
<td>0.015</td>
<td>0.008</td>
<td>0.016</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.055**</td>
<td>-0.004</td>
<td>-0.004</td>
<td>0.004</td>
</tr>
<tr>
<td>CV</td>
<td>0.208***</td>
<td>0.174***</td>
<td>0.543***</td>
<td></td>
</tr>
<tr>
<td>CQ</td>
<td>0.110**</td>
<td>0.046</td>
<td>0.418**</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td>0.134***</td>
<td>0.085*</td>
<td>-0.738***</td>
<td></td>
</tr>
<tr>
<td>CC</td>
<td>0.121***</td>
<td>0.069</td>
<td>0.239</td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td>0.271***</td>
<td>0.204***</td>
<td>-0.041</td>
<td></td>
</tr>
<tr>
<td>TP</td>
<td>0.327***</td>
<td>0.203*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Cross-Level Moderating Effects

| CVxTP | -0.129** |
| CQxTP | -0.118* |
| CAxTP | 0.266*** |
| CCxTP | -0.053 |
| CTxTP | 0.079 |

R² | 0.0784 | 0.5123 | 0.5609 | 0.5656 |

As given in Table 1, there are the results of the measurement model to verify reliability and validity. The Cronbach’s alpha (α) coefficients of all variables exceeded above 0.700, which range from 0.717 to 0.782.
0.840. In an effort to test and verify the convergence validity of the measurement model, we confirmed the significance of average variance extracted (AVE) and composite reliability (CR) which the applicability of measured items could carry to further analysis.

4.3 Analysis and findings

For the sake of testing the impact of impulse buying behavior on OCR, we conducted linear regression analysis. Table 2 shows the results that are remarkably fully supports the hypotheses H1, H2, H3, H4 and H5, which mean comment valence (β=0.196; p<0.01), comment quality (β=0.100; p<0.01), comment quantity (β=0.141; p<0.01), comment credibility (β=0.139; p<0.01) and timeliness of comments (β=0.296; p<0.01) have significant positive effects on impulse buying behavior in live streaming setting. H6 predicts that interactivity is positively associated with impulse buying behavior. In the regression analysis conducted, it is manifested that interactivity (β=0.124; p<0.01) positively affects impulse buying behavior. As a consequence, H6 is supported.

In order to determine whether interactivity has a mediating effect in the established model, we adopt STATA statistical software to conduct a stepwise regression analysis of OCR and interactivity on consumer impulse buying behavior. As indicated in Table 2, after entering the regression model, the regression coefficients of the three variables in OCR for impulsive buying behavior decreased, and the regression coefficient of comment quantity decreased from 0.141 to 0.118, a decrease of 0.023, the regression coefficient of comment credibility decreased from 0.139 to 0.117, a decrease of 0.022, the regression coefficient of timeliness of comment decreased from 0.296 to 0.256, a decrease of 0.04, and the significances also decreased. The interaction between comment quantity and impulse buying behavior is mediated through interactivity (β=0.118; p<0.01). The interaction between comment credibility and impulse buying behavior is mediated through interactivity (β=0.117; p<0.05). The interaction between timeliness of comment and impulse buying behavior is mediated through interactivity (β=0.256; p<0.01). And the proportion about comment credibility and timeliness of comment is bigger. Against expectation, the mediation effect is not significant for comment valence and comment quality, indicating interactivity that has no mediating influence on comment valence and comment quality toward impulse buying behavior, not supporting H7 and H8. Thus, H9, H10 and H11 are supported.

The results of hierarchical moderated regression are presented in Table 3. H12 predicts that trust of the live streaming platform affects impulse buying behavior positively. Regression analysis result shows that trust of the live streaming platform (β=0.327; p<0.01) has a positive influence on impulse buying behavior in the context of live streaming. The result supports H12. Hypotheses 13 to 17 examine the moderating effect of trust of the live streaming platform on the relationship of OCR towards impulse buying behavior. The interaction effect between comment valence and the live streaming platform on impulse buying behavior is significantly negative (β= -0.129; p < 0.05), indicating that trust of the live streaming platform weakens the negative impact of comment valence on impulse buying behavior. The moderator trust of the live streaming platform can significantly weaken the negative relationship between comment valence and impulse buying behavior. When the level of trust of the live streaming platform (β=0.174; p<0.01) is high, it will weaken the positive impact of comment valence on impulse buying behavior, and this significant positive impact relationship will decrease with the improvement of trust of the live streaming platform level. When the level of trust of the live streaming platform is low, the positive impact of s comment valence on impulse buying behavior is enhanced. Trust of the live streaming platform has significant moderating impact on the path between comment quantity and impulse buying behavior (β = 0.266; p < 0.01). It can be inferred that an increase in trust of the live streaming platform augments the effect of comment quantity on impulse buying behavior, thus supporting H13 and H15, not supporting H14, H16 and H17.

5. Discussion and implications

Interactivity plays a partial mediating role in the impact of OCR on consumers’ impulse buying behavior. From Table 2, we can find that the role of interactivity in comment quantity, comment credibility, and timeliness of comment is 16.3%, 42.4%, and 27%, respectively. Interactivity plays a major role in the impact of comment credibility on impulsive buying behavior. Comment quantity, comment credibility, and timeliness of comment promote interactivity in the live streaming process, which in turn promotes the emergence of impulsive consumer buying behavior. Interactivity plays a mediating role in this process. Additionally, consumers will not generate more interactivity due to the high price or quality of reviews, nor will they generate impulsive buying behavior. In other words, comment quantity, comment credibility, and timeliness of comment are not attributes of the product itself. They serve as a reference for purchasing decisions during the purchasing process. The addition of interactivity between consumers and live streamers, as well as between consumers and consumers which
can affect consumers' impulsive buying behavior in the live streaming room.

Unlike previous online reviews, when consumers watch live streaming, comment quantity, comment credibility, and timeliness of comment instantly, truthfully, and intuitively display product attributes and detailed features through interactive means, which helps reduce consumer uncertainty and is more conducive to encouraging consumers to make purchasing decisions and implement purchasing behavior. Therefore, live streaming merchants should pay attention to the impact of comment quantity, comment credibility, and timeliness of comment in the comment area. On the one hand, live streaming merchants should seriously treat and handle consumer feedback information, and promptly explain and patiently demonstrate consumer opinions to reduce the impact of negative comments. On the other hand, live streaming merchants should attach importance to the interactive atmosphere in the comment area, and live streamers should interact and communicate with consumers on a timely basis to enhance consumers' impulsive buying behavior.

Findings from the present study may have implications for live streaming merchants who provide customers with OCR to raise consumers' impulsive buying behavior. The comment valence of online reviews has a positive and significant impact on consumers' impulsive purchasing behavior. The main reason for this may be that consumers tend to form an "instinctive identification" when they see other people's comments, subconsciously believing that the product may be what the user says. If users give negative reviews of the product, after reading these negative reviews, the impact of these negative reviews will be weakened due to consumers' trust in the live streaming platform. Thus, a strong desire to obtain the product is generated, and as this desire becomes stronger, it triggers the occurrence of impulsive purchasing behavior among consumers. In other words, the more consumers trust live streaming platforms, the easier it is for comment valence to translate into impulsive purchasing behavior in the context of live streaming.

This study introduces the trust factor of consumers towards live streaming platforms as a moderating variable. Through empirical testing, the moderating effect of consumer trust in live streaming platforms on the impact of comment quantity on impulsive purchasing behavior proposed in this study has been verified. The number of online comments can easily attract consumers' attention, and the more comments there are, the more likely consumers are to develop a "herd buying mentality" and be more likely to purchase the product. With the addition of the moderating variable of consumer trust in live streaming platforms, the more comments there are, the easier it is to convert into impulsive purchasing behavior. When the amount of positive follow-up comments surges, potentially more consumers will be stimulated to make their impulsive purchases, thereupon then the demand for the product in the live streaming room will rise, bringing about a greater profit potential for live streaming merchants.

Live streaming merchants should pay attention to the impact of online comments on consumers' impulsive purchasing behavior. The results of this study indicate that in the context of live streaming, online comments have a positive and significant impact on the impulsive buying behavior of consumers who watch live streaming. Moreover, the higher the comment valence, the more comments there are, and the higher the timeliness, the greater the impact. Thus, in the booming era of streaming service, on the one hand, live streaming merchants should actively carry out targeted marketing activities, attach importance to utilizing feedback forums and comment areas in live streaming rooms, and take various incentive measures to encourage consumers to give positive comments on the products they have purchased. On the other hand, due to the high credibility of third-party comments, in the reality of mixed online reputation, third-party live streaming platforms independent of live streaming merchants are particularly important. So live streaming merchants should pay attention to improving the quality of online word-of-mouth, strengthening connections with consumers, establishing a trust community with strong relationships, choosing reputable and high-quality live streaming platforms to enhance consumers' trust, enhance the interactivity of live streaming sales, increase distance with consumers, and thus enhance consumers' impulsive purchasing behavior.

6. Limitations and future research

Despite every effort has been made and a series of methods and related variables have been applied in this paper, it must be admitted that there are inevitably some limitations in the paper. First, the research has focused on live streaming in China, it is not clear whether the research results are applicable to other countries or markets. Further research, including in other countries and through comparison, will enhance a deeper understanding of online consumer review on impulsive purchasing behavior. Second, in current research, the impact of different product types on consumer impulsive buying behavior has not been considered. In fact, in live streaming rooms, live streaming merchants will sell various product types. Hence, for future research it could be interesting to test the impact of different product types on online comments and impulsive buying behavior.
Acknowledgement

This paper is supported by the Fund Project: Tai’an City Science and Technology Innovation Development Project (Policy Guidance) in 2022. Project number: 2022ZC428.

References