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## A Tripartite View on Performance Matrices of Live Commerce

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#### 1. INTRODUCTION AND RESEARCH QUESTIONS

Live commerce is an innovative form of social commerce that involves real-time interaction between streamers and their following fans. It enables streamers to demonstrate the appearance and features of a product and provide comprehensive product information to consumers through video, which can help them make purchase decision <sup>[1]</sup>. Although the research of live commerce has attracted much attention from managers and scholars, it still in preliminary stages <sup>[2]</sup> and less research consider the roles of streamers, consumers, and products together in the context of live commerce. Recent studies mainly focus on one or two perspectives of these three elements. For instance, some researchers revealed how streamers' interactivity influence purchase intention and consumers' engagement behaviors <sup>[3,4]</sup>, While others examined the effect of the similarity between streamers and consumers affect purchase intention <sup>[1]</sup>. Furthermore, Gao et al. and Chen et al. focused on streamers' and products' factors on consumers' purchase intention <sup>[5,6]</sup>. Despite these scholars make many efforts, research that simultaneously investigate the role of streamers, consumers and products in live commerce is still lacking of analysis. Moreover, the live commerce performance matrices of interest in our study included sales volume, sales efficiency, and fan growth number. Sales volume is a vital indicator to evaluate the effectiveness of live commerce. Many researchers have examined various influencing factors on sales, including streamers' facial emotion <sup>[7]</sup>, linguistic persuasive styles <sup>[8]</sup>. Sales efficiency and fan growth number are other performances in live commerce and few studies focus on these aspects.

Therefore, to provide a more thorough insight of all three elements in live commerce, this study provides a tripartite view and will conduct empirical analysis to identify their effects on sales volume, sales efficiency, and fan growth number. Our research questions are as follows: (1) How to consider the factors of streamers, consumers, and products in live commerce from a tripartite view? (2) what is the mechanism that these factors affect the performance metrics in live commerce?

#### 2. THEORY AND RESEARCH FRAMEWORK

We select one key variable from streamers, consumers and products respectively. Specifically, these variables are streamers' social capital, following fans' engagement, and products' live demonstration. Our research framework is proposed as follow (Figure 1).

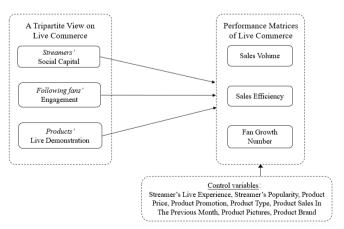


Figure 1. Research framework

The dataset we used to conduct empirical analysis contains 373 live streaming shopping shows with 34,925 products records during Double 11 Day of 2020 on Taobao Live platform, one of the largest live commerce platforms in China.

#### 3. RESULTS AND MAJOR FINDINGS

Our empirical analysis reveals that (1) streamers' social capital has a significant impact on sales volume and sales efficiency, but negatively impacts fan growth numbers. This may suggest that streamers with higher social capital may have difficulty attracting new fans but have an easier time selling products to their existing fan base. (2) Following fans' engagement is found to promote sales volume, sales efficiency, and fan growth number. This highlights the importance of fan engagement in the live commerce context. Fans who are more engaged may be more likely to purchase products and also more likely to recommend the live commerce platform to others. (3) Products' live demonstration is found to have a positive impact on sales volume but negatively affects sales efficiency. This suggests that while live demonstration can increase sales, it may also take more time and resources to execute, thus decreasing sales efficiency. Products' live demonstration is found to have no significant effect on fan growth number.

#### 4. CONTRIBUTIONS

Our research provides nuanced understandings of how the three elements of streamers, fans, and product streaming videos affect performance matrices of live commerce. The results suggest that streamers' social capital, following fans' engagement, and products' live demonstration all have unique impacts on sales volume, sales efficiency, and fan growth number. Our findings suggest that live commerce platforms should focus on developing strategies that encourage streamers to build social capital, promote fan engagement, and offer live product demonstrations in a way that balances sales efficiency and sales volume.

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