

The Influence of Extraversion on Douyin UGC Creation: An Analysis of the Mediating Effect of Self-Presentation

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Abstract. With the further development of short-video sites through the social media ecosystem, user-generated content (UGC) has become the driving force of online communication. It is against this background that this research investigates the role of personality traits in the content creation behavior of the user. This paper treats extraversion as the central variable and, based on this, explores the influence of extraversion on the intention of the Douyin users to create UGC and adds self-presentation motivation to the model to determine whether this is a possible mediating variable. The information was gathered through the Wenjuanxing platform, which had 49 valid responses. They included descriptive statistics, reliability analysis, Pearson correlation analysis, and the mediation analysis based on the PROCESS macro. The findings reveal that extraversion has a strong positive correlation with UGC creation intention, implying that people who are more extraverted will be interested in producing short video content. Self-presentation motivation also has a positive relationship with UGC creation intention. Nonetheless, the extraversion and self-presentation motivation relationship was not significant and was thus not supported by the mediation value. On the whole, this research proves the direct effect of extraversion on the intention to create UGC and gives empirical data regarding the behavior as a creator of content based on personality on short-video services. The small mediating position of self-presentation motivation brings forward the necessity of further investigation to include other psychological reasons or differences in platforms.

Keywords: Extraversion, self-presentation motivation, UGC creation intention, personality psychology framework

1. Introduction

The case under the analysis is devoted to the fast growth and popularity of the short-video platforms within the current social media frameworks. Specifically, the fact that engagements between the young users are extremely high in the context of Douyin predisposes the practical value of exploring how personality in the users is connected to their tendency to develop creative practices in the context of the digital economy. Based on the view of social psychology as well as communication study, the examination of the correlations between personality, motivation and behavior can be of a great interest to provide an understanding of how users are engaged in an online world. Hence, the proposed research project is not only the work bridging any research gaps in the area of short-video

platforms but also enhances the development of theoretical frameworks regarding the user behaviour on social media.

In this study, the authors focus on three variables, including extraversion, self-presentation motivation, and UGC creation intention. Specifically, it tests the general idea of extraversion as having an effect on the propensity to create content and self-presentation as a mediator variable in the relationship between the two. Methodologically, a literature review is going to be used to review the domestic and international literature that is relevant to the study and to provide the reasoning. Moreover, it should be noted that survey data were quantitatively analyzed using the Wenjuanxing platform, and the high-quality analyses were performed based on descriptive statistics, reliability checks, Pearson correlation, and the mediation analysis with the help of the PROCESS macro, which makes the research findings appear more credible and explanatory.

The final objective of this research is to develop a pathway model that would explain the connections between personality, motivation, and behavior as well as explain how extraversion indirectly or directly impacts UGC creation intention. In order to realize the aim, the study is systematic in gathering and analyzing survey data and performing statistical tests using the postulated theoretical framework and thus making the validation of the effects of extraversion on the content creation tendencies of users working on short-video sites to be realized.

1.1. Research review

Extraversion is one of the five key dimensions of personality and it is essential in influencing the social behavior of an individual and the expression of emotions [1]. Past studies have revealed that extraversion people are generally more predisposed to self-presentation and tend to interact more on the digital platform, where entitlement to their related positive feedback and social support via impression management theory offer a significant depiction to self-presentation on the internet [2]. Against this backdrop, impression management theory provides a valuable tool to explain self-presentation behaviour of online platforms. Goffman claimed that the choice of self-disclosure is what allows individuals to manage the impressions of those who meet them in social situations, which, in turn, is further enhanced by the openness and visibility of social media settings [3]. Further research demonstrated that self-presentation requirements among users are considerably increased by whether they meet in a social environment or not, which is even more obsessive in the context of social media [4]. In the short-video research, Hjetland also indicated that adolescents view content creation more often on social media, in addition to empirical data, which revealed that personality traits and content creation have a close connection with each other [5,6]. This study has additionally revealed that extraversion and openness are good predictors of the short-video posting behaviors of users, self-presentation motivation acts as a partial mediator between personality traits and self-presentation motivation, and that the individual high in extraversion is more likely to engage in active self-presentation and sharing of information on the internet [7]. Lastly, a mediation model could be created by postulating that features of personality may indirectly influence the behavior of online expressiveness in individuals because of psychological motivation, and described a mediation model between personality traits, psychological motivation, and online expressiveness [8]. In retrospect this offers a direct theoretical and empirical evidence of a mediating pathway addressed in the current study which has been; extraversion self-presentation motivation UGC creation intention [9].

1.2. Research gap and hypothesis development

In the academic literature, most studies have majored on platforms like Facebook, Instagram, whereas the literature on platforms pertaining to Chinese short-video sites is significantly underdeveloped. To be precise, there is still limited empirical studies on the mediating effect of personality traits and creative motivations. In order to fill this research gap, the following hypotheses are presented in the study.

H1: Higher levels of extraversion are associated with stronger intentions to create UGC on Douyin.

H2: Extraversion has a positive effect on self-presentation motivation.

H3: Self-presentation motivation plays a positive mediating role in the relationship between extraversion and UGC creation intention.

2. Research methods

2.1. Sample and data collection

The questionnaire survey employed in this study is an effective method of research since the research variables of interest, which include extraversion, self-presentation motivation, and UGC creation intention, are abstract and subjective psychological variables, and thus implicit traits like personality characteristics and psychological motivations can be measured in a similar vein by use of the standardized questionnaires. There are also such advantages associated with the questionnaire approach, e.g., high levels of anonymity, low response burden and the potential consequences of gathering a fairly large sample at once to increase the level of authenticity of the information and improve the internal validity of the research study. In the case of this study, 80 valid responses were received in this study. The samples were mainly made up of undergraduate and graduate students, but there was a low percentage of working professionals and people in alternate backgrounds. Majority of the participants were found in northern parts of China. To be as unbiased as possible, taking into consideration the subjective factors, the use of the structured scales and quality-control items made the data more reliable and valid and the students of the university are the group highly related to the research topic, as they use the social media quite often, create content as well, and are highly sensitive to the self-presentation. This renders them an appropriate population in trapping the correlation between personality and creative actions on online platforms. Nevertheless, the non-extensive homogeneity of this sample could have consequences to the external validity of the study and it is possible to assume that the findings should be used with caution in order to be applied to other segments of the population or other age groups. In general, the questionnaire approach fulfills the criterion of assessing the psychological variables used in this research, and the balance between the efficiency of data collection and its reliability is effective.

2.2. Measurement of variables and research instruments

In terms of variable measurement, in this study, established scales were used and suitable adaptations to fit the needs of the study were made, that is, with regards to extraversion, such a process entailed the short version of the Big Five Inventory (BFI) designed by Rammstedt and John, which contained four items [10]. Two of them were reversed-coded to increase the discriminative ability and the measurement stability of the scale. The reliability test revealed that the scale exhibited high internal consistency with Cronbach alpha of 0.731. Second, a reverse-coded item was

used to improve the scale in terms of discriminative ability and measurement stability. The pilot test gave an internal consistency coefficient of 0.619, which was lower than the perfect value. Nonetheless, with the item of reverse-coded removed, reliability has increased to 0.674, and it indicates that the revised scale has an acceptable applicability in the sample in this study. Lastly, to measure the UGC creation intention, this study has formulated five questions based on the topic under research. To sum it up, the measurement tools of all research variables were also validated by the reliability analysis which revealed the coefficient of 0.878, which indicated high level of internal consistency of this scale. These characteristics are used to make sure that the data of the study is valid and interpretable.

2.3. Data analysis methods

Regarding data analysis, this research study applied descriptive statistics, reliability testing, and correlation analysis, followed by linear regression, and mediation analysis, respectively, to provide systematic responses to the research questions and test the hypotheses put across. This measure can guarantee that the assumptions used in the further statistical results are taken into account and can also create a preliminary vision of the overall levels of extraversion and self-presentation motivation alongside the UGC creation intention among the participants of the sample. Next, Pearson correlation analysis was applied to check the basic direction and strength of the relationships between the core variables, which would provide a fundamental basis of regression models development, as well as to further assess whether self-presentation motivation has independent predictive power in the relationships between extraversion and UGC creation intention. Finally, to check the presented main mechanisms of the hypotheses, mediation analysis with the application of regression models and Sobel test was used. Overall, these methods would establish the presence of an indirect effect of extraversion on UGC creation intention via self-presentation motivation, which in turn makes the association of the three variables systematic rather than incidental and establishes mechanisms instead of mere associations. This model allows a holistic analysis of the relational channels connecting the traits and psychological motivation of the users, and intentions to create content on online sites.

2.4. Research results

2.4.1. Descriptive statistics

Eighty responses were taken as the total of the valid responses in the study ($N = 80$). Descriptive analyses were initially done to determine the distribution of the means of extraversion (EX), self-presentation motivation (SP), and UGC creation intention scores (UGC). Extraversion scores had evident central tendency with the majority of the participants contained in the values of 3-4 (39 participants) 4-5 (27 participants) (see Figure 1). This suggests that the general amount of extraversion in the sample was moderate.

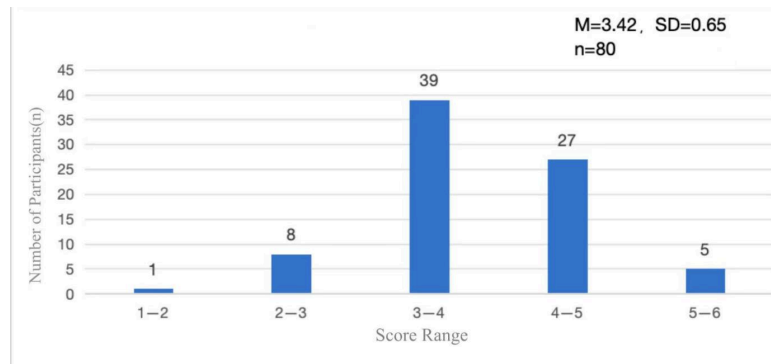


Figure 1. Distribution of extraversion scores

The Pearson correlation outcome of the three variables can be seen in Table 1. Extraversion and self-presentation motivation showed a low level of correlation (0.028) with each other, which did not reveal any association between them. Extraversion and the intention to create UGC had a weak positive correlation ($r = 0.297$). Conversely, the relationships among self-presentation motivation, UGC creation intention, and effects were moderately good and positive ($r = 0.541$).

Table 1. Correlation heatmap of extraversion, self-presentation motivation, and UGC creation intention

	EX	SP	UGC
EX	1	0.03	0.3
SP		1	0.5
UGC			1

2.4.2. Simple regression models

Extraversion → UGC Creation Intention. The regression model predicting UGC creation intention from extraversion (Model 1) showed that $\beta = 0.396$, $p < .01$, with an R^2 of 0.088.

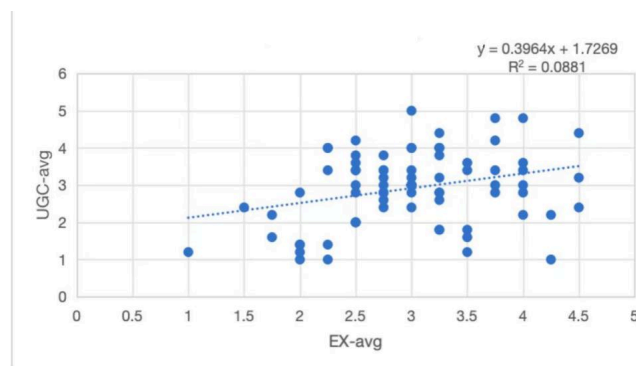


Figure 2. Regression scatterplot of extraversion predicting UGC creation intention

As Figure 2 reveals, the trend line has a positive slope, which means that the stronger the extraversion level is, the stronger the intention to create UGC is. The model, however, has a moderate explanatory power which explains 8.8 percent of the variance.

Self-Presentation Motivation → UGC Creation Intention. Further regression analysis based on self-presentation motivation to predict UGC creation intention (Model 2) indicated that, $\beta = 0.243$, p

=.001 with a $R^2 = 0.232$.

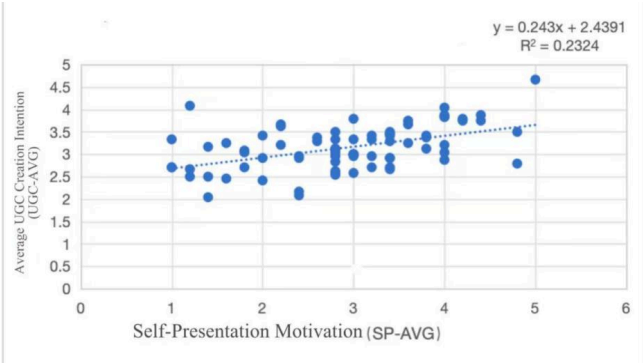


Figure 3. Regression scatterplot of self-presentation motivation predicting UGC creation intention

As Figure 3 illustrates, the R explanatory value of the model also rises to a significant 23.2% value, which means that motivation to self-presentation is a more effective predictor of UGC creation intention.

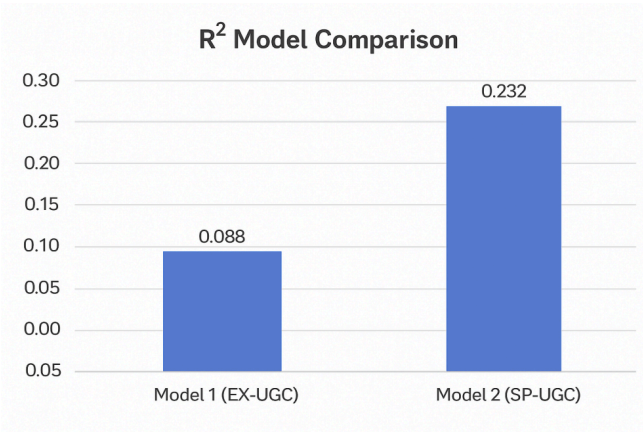


Figure 4. Bar chart comparing R² across models

Figure 4 illustrates a clear difference in explanatory power between the two models (Table 2):

Table 2. Comparison of R² values between the two predictive models

Models	Predictor Variable → Outcome Variable	R²
Model 1	EX → UGC	0.088
Model 2	SP → UGC	0.232

Self-presentation drive corresponds with a higher percentage of variance in UGC creation intention than extraversion, which supports the point that the motivational psychological factors are closer to predict the behaviour of users to create UGCs than to the personality traits.

2.4.3. Mediation analysis

A three-path regression strategy was used to test whether self presentation motivation mediates the connection that existed between extraversion and intention to create UGCs. The corresponding path diagram is seen in Figure 5.

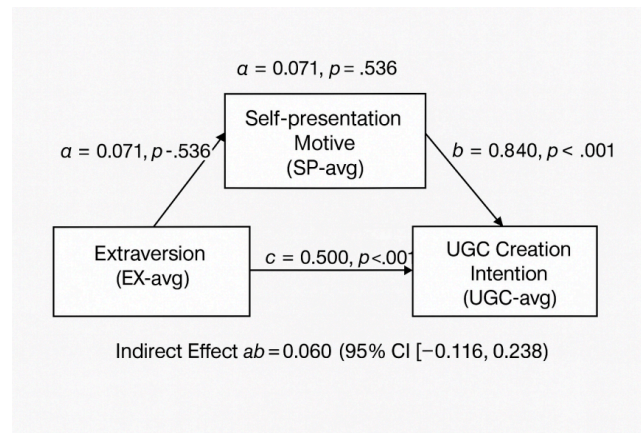


Figure 5. Mediation path model of extraversion, self-presentation motivation, and ugc creation intention

(1) Path a: Extraversion → Self-Presentation Motivation

The regression coefficient was 0.071, $p = 0.536$ (n.s.), which means that extraversion did not play an important role in self-presentation motivation. The path a thus was not supported.

(2) Path b: Self-Presentation Motivation → UGC Creation Intention

Self-presentation motivation had a very strong and significant positive effect on the UGC creation intention as demonstrated in the regression coefficient 0.840, $p < .001$.

(3) Direct Effect c: Extraversion → UGC Creation Intention

The coefficient of regression was $10 = 0.500$ and the p-value was $< .001$, and this implied that extraversion was also a strong predictor of UGC creation intention, which was independent of the inclusion of self-presentation motivation in the equation.

(4) Indirect Effect ($a \times b$)

It was estimated that an indirect effect was $a \times b = 0.060$ with 95percent confidence interval being -0.116, 0.238. The indirect effect cannot be found to be significant because the confidence interval contains zero.

Consequently, it can be realised that the self-presentation motivation does not act as the mediating variable between extraversion and UGC creation intention. Stated differently, extraversion has a direct positive correlation with UGC creation intention and self-presentation motivation has a significant positive to UGC creation intention; but extraversion is not significant to self-presentation motivation and therefore the mediating variable process is not supported.

3. Conclusion

This study has done the relationships between extraversion, self-presentation motivation, and the intention of users to create UGC on the Douyin platform on the basis of 80 valid answers, the results of which reveal that the extraversion significantly influences the intention of the users to create UGC positively, implying that those with higher-extraversion tend to be more willing to create the content. Simultaneously, the mediation analysis showed that an extraversion, as a factor of a personality level does not mediate its effect between the intention to create UGC and the desire to present oneself using this technology, which means that the intention to create UGC and self-presentation motivation do not have a mediating relationship. Self-presentation motivation is, on the other hand, acted as a separate process, which promotes the content creation behaviours.

This study has significant implications to the content creation behavior of individuals on short-video platforms, first, it indicates that the essence of personality traits is central to UGC creation, and it provides an empirical confirmation of the psychological processes underlying content creation on social media. Second, the study distinguishes the so-called personality-driven and motivation-driven pathway and can shed some light on how platforms work and how the creation of incentives to draw creators can be designed. According to the findings, the platforms wishing to leverage more content should not solely count on external reward or even functionality, but rather come up with the differentiated incentive system that suits to users with various psychological profiles: features that motivate on the extraversion scale may prove more attractive, features that motivate on the self-presentation scale can be more attractive.

The direction of future research can be further developed in a number of ways. To improve the external validity of the model, first, it will be possible to increase the sample scope to cover users with different age groups, occupational backgrounds, or various platforms; second, other psychological variables, including social comparison tendency, platform dependency, or identity construction, may be considered in the future. Further, more rigorous investigations of causal relationships can be supported by methodological innovations like experimental designs or longitudinal data analysis, to further include the moderating role of algorithmic recommendation on the creation intentions of users, which will help capture more of the creation intentions of UGCs in a comprehensive model.

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