Research on the Influence Factors of MOOC Platform WeChat Marketing

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Abstract: This paper studies the combination of MOOC platform and WeChat marketing, and discusses the influence factors of MOOC platform WeChat marketing. This paper constructs the influence factors model, verifies the hypothesis through questionnaire and SPSS statistical analysis, and believes that tweet title, tweet content and typesetting layout can influence MOOC platform WeChat marketing effect based on the verification results. Feasible Suggestions are given according to the above three aspects: selecting the title of welfare style, introducing the authority of MOOC platform through tweets, and adopting harmonious layout.

Keywords: MOOC platform; WeChat marketing; Tweets; Influence factors
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1. Background and Research Proposed

(1) Research on MOOC and WeChat Marketing

Chen and Wang pointed out that MOOCs (Massive Open Online Courses) will attract more and more attention in China and even the world, and play an important role in the field of education [1]. Judy Strauss, and Raymond Frost pointed out that users should be encouraged to create word-of-mouth media, and participation is the consumption, attention, and collaboration of Internet users on enterprises, brands, and their products [2]. Xue believes that WeChat (a software combined instant messaging and social network functions, similar as Facebook plus Messenger) marketing is the most popular marketing method at present [3]. Qi and Zhang suggest that enterprises should pay attention to the appropriateness of information push frequency and readability of information push content when carrying out WeChat marketing, and improve user stickiness by using information push [4]. Han believes

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that WeChat marketing is quick and easy to operate, and different enterprises should use these characteristics to find ways to adapt to their own marketing [5].

(2) Research Proposed

WeChat marketing has a good effect, and MOOCs have a bright future. But the use of MOOCs relies on the MOOC platform. The promotion of MOOC platform by WeChat marketing is worth considering and studying by scholars. As there are many forms involved in WeChat marketing, this paper aims at the current mainstream WeChat tweets.

2. Hypothesis and Model Building

(1) Research Hypothesis

This paper adopts questionnaire survey method and SPSS statistical analysis. The survey objects are users of MOOC and WeChat. Combining with the research on the influence factors of WeChat marketing, four variables of tweet title (TT), tweet content (TC), picture style (PS) and typesetting layout (TL) are selected as the influence factors of WeChat marketing effect of MOOC platform.

The relationship between twitter title and usage intention. A good tweet title can inspire users to click and read, as well as tell them what the article is about. Potential users are selective when looking at tweets, often deciding in a second or two whether to read on or skip over, depending on whether the headline catches their attention. This paper hypothesizes that H1a, tweet title has a significant positive effect on usage intention.

The relationship between tweet content and usage intention. It can be seen from the “2016 Market Research Report on APP and WeChat Official Accounts” published by the iiMedia Research [6] that 52.3% Internet users use WeChat official accounts to obtain real-time information. Whether the content of WeChat tweets meets the needs of users is very important. According to the survey conducted by the iiMedia Research [6], 65.2% of netizens unsubscribe due to the lack of content pushed by WeChat official accounts. This paper hypothesizes that: H2a, tweet content has a significant positive effect on usage intention.

The relationship between picture style and usage intention. Pictures are the most eye-catching place, in the dense text, pictures will become a highlight, let users feel fresh. Pictures are often easier to understand than words, allowing users to see what a tweet means. This paper hypothesizes that: H3a, picture style has a significant positive effect on usage intention.

The relationship between typesetting layout and usage intention. The excellent typesetting layout allows users to quickly browse the tweets without affecting the loading speed of the tweets due to too many words or too many pictures, thus en-
hancing users’ reading experience. This paper hypothesizes that: H4a, typesetting layout has a significant positive effect on usage intention.

The moderating effects of age. Users of MOOC platform are basically self-learning users, while MOOC platform is an online platform that needs to use mobile devices such as computers and mobile phones. Therefore, users aged between 18 and 40 are more likely to accept WeChat push about MOOC platform. This paper hypothesizes that: H5a, for MOOC platform users of different ages, the influence of tweet title, tweet content, picture style and typesetting layout is different on the usage intention of the MOOC platform WeChat marketing.

The adjusting and checking function of educational background. Currently, the main users of MOOC platform are college students and white-collar workers, who can use the MOOC platform to obtain the knowledge or course certification they need, which indicates that people with advanced degrees are more likely to accept WeChat tweets from the MOOC platform. This paper hypothesizes that: H6a, for MOOC platform users with different degrees, there are differences in the influence of tweet title, tweet content, picture style and typesetting layout on their usage intention of the MOOC platform WeChat marketing.

(2) Theoretical Model Construction

This paper refers to previous studies to build the influence factor model, see Figure 1. Take the selection of tweet title, tweet content, picture style and typesetting layout as independent variables. This paper only focuses on attracting potential users from the perspective of marketing, without considering the actual use of users. Therefore, usage intention is taken as the dependent variable. In addition, age and educational background were selected as moderating variables to construct the theoretical model of this study.

Figure 1. Influence Factors Model Construction
3. Questionnaire and Data Analysis

(1) Questionnaire Overview

The questionnaire consists of 27 questions, which are divided into 3 parts. The first part is a total of four questions, the basic information of the respondents. The second part is about the respondents’ understanding of MOOC platform and their use of WeChat. There are six questions in total. This part mainly helps to eliminate some invalid questionnaires and understand the specific situation of respondents’ understanding of MOOC platform. The third part is the main part of the questionnaire, mainly about the hypothetical MOOC platform WeChat marketing four influence factors and variable measurement as a result, concrete including tweet title, the tweet content, picture style, typesetting layout and usage intention, a total of 17 questions, using the five-level Likert scale as a research tool option. A total of 285 questionnaires were collected and 260 useful ones were screened, with a recovery rate of 91.2%.

(2) Descriptive Analysis

In this sample data, there were a total of 129 males, accounting for 49.62%. There were 131 females, accounting for 50.38 percent. As for the age of the respondents, the proportion of those aged between 18 and 25 reached 83.08 percent, more than four times that of other age groups. WeChat is popular among young people as a new era of social media, and the survey results are consistent with the actual situation. As for the education background of the respondents, the number of respondents with bachelor’s degree is the largest, accounting for 86.15%, accounting for 224 in total. This indicates that the education background of the respondents in this survey is generally above bachelor’s degree. It also indicates that they are highly educated, eager to accept new things, and relatively easy to use the MOOC platform. As for the careers of the respondents, most of them are students in school, accounting for 79.23%, indicating that the respondents are mainly students in school, who are the easiest to use the MOOC platform.

Among the respondents who knew about MOOC platform, 102 (39.23%) would recommend MOOC platform to others, and 70 (70%) would recommend WeChat. This shows that MOOC platform WeChat marketing has a feasible basis and is easy to be accepted by users.

In terms of the usage of WeChat, 93.08% of people use WeChat several times a day, which indicates that WeChat is more popular among users. However, 44.61% of WeChat users tend to browse the tweets of WeChat official accounts from 20:00 to 23:00, and 31.54% choose to browse from 18:00 to 20:00. It is more appropriate to conduct WeChat marketing at night, and users focus on reading tweets currently.
(3) Reliability and Validity Analysis

In terms of reliability, Cronbach’s Alpha of tweet title, tweet content, typesetting layout and usage intention were 0.749, 0.803, 0.750 and 0.822, respectively, all greater than 0.7. However, the Cronbach’s Alpha of picture style was 0.644, less than 0.7. This factor is retained for further testing. In general, it can be considered the sample reliability is good, in line with the requirements of the study.

In terms of validity, this paper has four independent variables: tweet title, tweet content, picture style and typesetting layout. The usage intention is the dependent variable. Through KMO analysis and Bartlett sphericity test, the KMO value of the independent variable is 0.855, and the Bartley sphericity test coefficient is 0.000, indicating that the independent variable meets the requirements of factor analysis. The principal component analysis method was used for factor analysis. The interpretation rate of the cumulative variance of the three factors, including the tweet content, tweet title, typesetting layout and picture style (combined), reached 63.175%, and the characteristic values were all greater than 1. It can be seen from the sum of rotation squared and loading that the influence factors are combined into three, which are consistent with the results of the reliability test above, indicating that the influence factors of picture style is classified into another influence factor. In general, the collected sample data achieved good structural validity. The KMO value of the dependent variable was 0.782, and the Bartley sphericity test coefficient was 0.000, indicating that the dependent variable met the requirement of factor analysis. The eigenvalue of willingness to use is greater than 1, and the cumulative variance interpretation rate reaches 65.186%, so the questionnaire has a good structural validity. The maximum variance method was adopted for factor rotation, and the factor load values of usage intention were all greater than 0.7, indicating that the test of the structural validity of the questionnaire on usage intention was passed and met the requirements.

(4) Correlation Analysis and Regression Analysis

The correlation analysis of variable is shown in Table 1. All variables were significantly correlated at the significance level of 0.01, which met the research requirements.

| Tweet Title | Tweet Content | Typesetting Layout | Usage Intention |
|-------------|---------------|-------------------|----------------|
| Pearson Correlation | 1 | .551** | .446** | .463** |
| Sig. (2-tailed) | .000 | .000 | .000 |
| N | 112 | 112 | 112 |
| Tweet Content | Pearson Correlation | .551** | 1 | .655** | .716** |
| Sig. (2-tailed) | .000 | .000 | .000 |
| N | 112 | 112 | 112 |
| Typesetting Layout | Pearson Correlation | .446** | .655** | 1 | .727** |
| Sig. (2-tailed) | .000 | .000 | .000 |
| N | 112 | 112 | 112 |

Table 1. Correlation Analysis of Variables
As can be seen from Table 3, in the regression model, the typesetting layout first enters the model, indicating that the typesetting layout has the greatest influence on usage intention and the greatest correlation with usage intention. The tweet content and tweet title enter the model successively, indicating that tweet content and tweet title have a significant influence on usage intention. As can be seen from Table 2, the regression results explained 71.9% of the total variation, and the significance of the regression model was less than 0.05, indicating that the regression effect of the model was good and could meet the research requirements.

(5) Age Regulatory Action Test

As can be seen from Table 4, the variance variation of tweet title, tweet content and typesetting layout to usage intention was significantly different in different age groups. In the grouping of four age groups, the grouping regression equation had no significant effect in the two age groups below 18 and above 40 (P>0.001), indicating that these two age groups have no moderating effect on tweet title, tweet content, typesetting layout and usage intention. In addition, the grouping regression equation had significant effects in the ages of 18 to 25 and 25 to 40 (P<0.001), in-
indicating that these two age groups have a moderating effect on tweet title, tweet content, typesetting layout, and usage intention.

| Age            | Independent Variable | R    | R Square | Adjusted R-Square | F    | Sig.   |
|----------------|----------------------|------|----------|-------------------|------|--------|
| below 18       | Tweet Title          | .157 | .025     | -.219             | .101 | .766   |
| 19 to 25       | Tweet Title          | .458 | .210     | .200              | 20.749 | .000  |
| 25 to 40       | Tweet Title          | .615 | .378     | .339              | 9.713 | .000   |
| above 40       | Tweet Title          | .485 | .235     | .107              | 1.841 | .224   |
| below 18       | Tweet Content        | .829 | .688     | .610              | 8.811 | .041   |
| 19 to 25       | Tweet Content        | .673 | .452     | .445              | 64.418 | .000  |
| 25 to 40       | Tweet Content        | .670 | .448     | .414              | 13.000 | .000  |
| above 40       | Tweet Content        | .913 | .834     | .807              | 30.235 | .002  |
| below 18       | Typesetting Layout   | .830 | .688     | .611              | 8.839 | .041   |
| 19 to 25       | Typesetting Layout   | .651 | .424     | .417              | 57.454 | .000  |
| 25 to 40       | Typesetting Layout   | .795 | .631     | .608              | 27.400 | .000  |
| above 40       | Typesetting Layout   | .846 | .715     | .668              | 15.075 | .008  |

(6) Educational Background Regulatory Action Test

As can be seen from Table 5, the variance of the interpretation of tweet title, tweet content and typesetting layout to usage intention is significantly different with different educational background. There was no significant effect of the regression equation between four groups with academic degrees, those with a high school degree or less, and those with a junior college degree (P>0.001), indicating that the lower education level has no moderating effect on tweet title, tweet content, typesetting layout and usage intention. The grouping regression equation of other two groups had a significant effect, indicating that higher education level had a moderating effect on tweet title, tweet content, typesetting layout and usage intention.

| Age             | Independent Variable | R    | R Square | Adjusted R-Square | F    | Sig.   |
|-----------------|----------------------|------|----------|-------------------|------|--------|
| below high school | Tweet Title          | .283 | .080     | -.035             | .698 | .428   |
| junior college  | Tweet Title          | .618 | .381     | .343              | 9.867 | .006   |
| undergraduate    | Tweet Title          | .467 | .218     | .208              | 21.792 | .000  |
| postgraduate     | Tweet Title          | .132 | .018     | -.474             | .036 | .000   |
| below high school | Tweet Content        | .768 | .589     | .538              | 11.469 | .010  |
| junior college  | Tweet Content        | .772 | .597     | .571              | 23.663 | .003  |
| undergraduate    | Tweet Content        | .661 | .437     | .429              | 60.459 | .000  |
| postgraduate     | Tweet Content        | .225 | .051     | -.424             | .107 | .000   |
| below high school | Typesetting Layout   | .792 | .627     | .580              | 13.450 | .006  |
| junior college  | Typesetting Layout   | .903 | .815     | .804              | 70.606 | .000  |
| undergraduate    | Typesetting Layout   | .624 | .389     | .381              | 49.670 | .000  |
| postgraduate     | Typesetting Layout   | .333 | .111     | -.333             | .250 | .000   |
(7) Revised Model Study

According to the test results, modify the original model of this paper, as shown in Figure 2:

![Revised Influence Factors Model](image)

Figure 2. Revised Influence Factors Model

The results showed that picture style had no significant influence on the usage intention, while tweet title, tweet content and typesetting layout had significant influence on usage intention, among which age and educational background had a certain moderating effect.

4. Conclusions and Suggestions

(1) Research Conclusion

H1a, tweet title has a significant positive effect on usage intention, which is true. H2a, tweet content has a significant positive effect on usage intention, which is true. H3a, picture style has a significant positive effect on usage intention, which in not true. H4a, typesetting layout has a significant positive effect on usage intention, which is true. H5a, for MOOC platform users of different ages, the influence of tweet title, tweet content, picture style and typesetting layout is different on the usage intention of the MOOC platform WeChat marketing, 18 to 40 age group is valid; and below 18 and above 40 is not valid. H6a, for MOOC platform users with different degrees, there are differences in the influence of tweet title, tweet content, picture style and typesetting layout on their usage intention of the MOOC platform WeChat marketing, bachelor degree or above is valid; and education below junior college is not valid.

The tweet title, tweet content and typesetting layout positively influenced users’ MOOC platform usage intention. The influence degree was in the order of typesetting layout, tweet content and tweet title. Since the picture style has no sig-
nificant influence on the user’s usage intention, the hypothesis is not valid because the user believes that the picture style can be incorporated into the typesetting layout, and does not need to be differentiated.

For users of different age groups, the hypothesis test results in this paper are partially valid. In the two age groups below 18 and above 40, the age adjustment effect is not significant. The explanation is as follows: relatively speaking, people in these two age groups use WeChat less, are not interested in the marketing of WeChat on MOOC platform, and are not willing to accept it. Another point is that the proportion of users below 18 and above 40 in the total sample is not high, and the data obtained are not close to the real situation.

For users with different educational background, the hypothesis test results of this paper are partially established, among which the two types of educational background are below high school and junior college, and the moderating effect of educational background is not significant. The explanation is as follows: users with these two degrees are relatively less likely to study independently on the MOOC platform, so they are not willing to use the MOOC platform. Another point is that the proportion of users with these two degrees is not high, so the data may not be close to the real situation.

(2) Suggestions

Tweet title. The title is the beginning of a tweet, which can attract users. Only when the topic is pointed out and flexible expression is needed can users actively click to browse the tweet. When conducting MOOC platform WeChat marketing, it can choose welfare form, such as “giving you more than 100 free courses”. It is also suitable choosing a more grandiose title, such as “the most comprehensive MOOC platform in history”, to impress users.

Tweet content. A tweet with rich content and high quality can continuously attract WeChat users to read, follow and forward it to people around them, which is similar to viral marketing and forms a good chain reaction, thus helping twitter attract users to subscribe to WeChat official accounts. In the MOOC platform WeChat marketing, it should focus on the tweet content. It can introduce the authority of the MOOC platform and tell users that MOOC is a universal learning platform and the course certification is also international. In addition, tweets can also introduce users’ comments on MOOC platforms, so that potential users can further understand the benefits of MOOC platforms and generate interest. At the same time, the MOOC platform makes use of the powerful function of comments to communicate with users without sharing time and space, to meet the needs of users and serve as a reference for the following tweets. However, the focus is still on content. In the era of content first, it should always remember to bring high quality tweets to users and improve their viscosity and satisfaction. It should not feel that it is following WeChat official accounts.
Typesetting layout. For typesetting layout, the picture should be at the bottom of a paragraph, serving as a footnote to leave an impression on the reader. It can also choose to put text on the right side of the picture, which should be aligned and not uneven. In this way, the browsing time will be shortened and it will be more popular to young readers. In addition, the number of words should be properly controlled, usually 100 words in a paragraph is better, the font should be large, so that users know the meaning of the tweet in the first time. Before posting a tweet, the tweet creator should read it on the phone or computer to ensure that the tweet format conforms to the requirements of the mobile device, the text should be as black as possible, the proportion of picture should be adjusted correctly, and the loading time should be short, so as to improve the user experience and enhance user loyalty.

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