Advertising Breaks the Privacy of WeChat Circle of Friends Analysis

Tingxian Huang[1,a,*]

[1]*Chengyi College, Jimei University, Xiamen, China*
a. huilanfruit@ldy.edu.rs
*corresponding author

Abstract: With the rapid development of Internet technology and the popularity of smart phones, social media has become an indispensable part of People's Daily life. WeChat, one of the largest social media platforms in China, has gained popularity for its moments function due to its high degree of privacy and user viscosity. However, with the rise of the social media advertising market, the frequent appearance of advertising messages in WeChat moments not only disrupts the social experience of users, but also may cause users to worry about privacy leakage. This study aims to deeply analyze how advertisement delivery breaks the privacy of WeChat circle of friends, and explore the possibility of optimizing advertisement delivery strategy, including delivery quantity, delivery characteristics, target audience positioning and so on. Through the optimization strategy, the purpose is to reduce the intrusion of user privacy, improve user experience, and achieve a win-win situation between business interests and user privacy protection. Using questionnaire survey and hot list comparison, the study analyzed the impact of advertising on users' privacy perception, attitude and behavior. Suppose the results show that AD delivery breaks the privacy of WeChat moments to some extent, and users are put off by frequent and non-personalized ads. The study also found that gender, age, occupation and other factors have an impact on the perception of privacy in WeChat circle of friends. Based on the research results, marketing strategies and content suggestions for different user groups are proposed, in order to better safeguard users' privacy rights and social experience while ensuring the effect of advertising delivery and promote the sustainable development of social media platforms and advertising industry.

Keywords: privacy, consumer willingness, advertising strategy, WeChat circle of friends.

1. Introduction

With the rapid development of Internet technology and the popularity of smart phones, social media has become an indispensable part of People's Daily life. As one of the largest social media platforms in China, WeChat's moment's function has attracted a large number of users with its high degree of privacy and user viscosity, showing a high degree of immediacy and frequent interaction between users, and quickly feedback interested content through likes, comments, forwarding and other ways, forming a close social network [1]. However, with the rise of the social media advertising market, more and more advertisers are seeking to place ads on social media platforms to expand brand influence and market share. With the frequent appearance of advertising information not only disrupts the user's social experience, but also may cause users to worry about privacy leakage, which has

aroused widespread concern and discussion. Therefore, it is particularly important to analyze how advertising breaks the privacy of WeChat circle of friends and explore how to optimize advertising strategy. This study aims to guide the optimization of advertising strategies, promote the standardized development of the advertising industry, provide references for the formulation of relevant policies, enhance public confidence in privacy protection, and promote the sustainable development of social media platforms through this discussion. The main content includes the analysis of the impact of advertising on the privacy of WeChat moments: 1) the form and characteristics of advertising, the change of user privacy perception, the correlation between advertising and user behavior 2) the optimization of advertising strategy, the optimization of time and frequency of advertising; 3) Determine a reasonable amount of placement and analyze the amount of placement based on user acceptance. This study carefully designed a set of questionnaires containing multi-dimensional questions by using a scientifically designed questionnaire survey method, aiming to comprehensively and deeply explore users' perception, attitude and privacy protection needs on WeChat moments advertising. The contents of the questionnaire cover a number of key aspects such as the basic information of users, the frequency of receiving advertisements, and the awareness of privacy protection to ensure the comprehensiveness and accuracy of the data. In order to ensure the reliability and validity of the data, this study will follow a strict data collection and analysis process. This includes steps such as pre-test questionnaires, formal distribution, data cleansing, and statistical analysis to ensure the accuracy and credibility of the final results. At the same time, the advanced hot list analysis technology is combined with time series analysis in order to more comprehensively understand the changing trend of users' concerns and predict the future trend.

2.   Literature Review

2.1.   WeChat Circle of Friends Definition

Users can share their life, mood, food and other content in the WeChat circle of friends through the release of text, pictures, videos and other forms, so that friends can understand their life status. Support "like", "comment", "forward" and other functions in the circle of friends, users can interact with friends, express agreement, ask questions, share views, etc., and enhance social contact. Some users use third-party tools or WeChat built-in functions to set scheduled tasks and automatically publish circle of friends' content at a specific time to improve publishing efficiency. Users can constantly try new forms of content, such as using creative illustrations, setting suspense titles, sharing dry goods knowledge, etc., to attract more attention and interaction. WeChat Moments is a relatively private social platform, but the content posted by users can be seen by all friends and has a certain openness. This feature makes users more cautious about sharing content, while also promoting the effective dissemination of information. Based on the social relationship between users, enhance the connection and emotional communication between users through interactive means such as likes and comments. This strong social attribute makes the circle of friends become one of the important channels for brands and individuals to carry out marketing promotion. The content of the circle of friends is rich and diverse, including text, pictures, videos, etc. Users can choose the right way to publish according to their preferences and needs. This diversity makes Moments a dynamic and creative social platform. You can also customize the circle of friends according to your preferences and needs, such as selecting a cover picture, setting the visible range, etc. This personalized setting makes each user's circle of friends unique and enhances the user's sense of belonging and identity.

2.2.   WeChat Circle of Friends Advertising Definition

WeChat circle of friends advertising is a native advertisement displayed on the social platform of WeChat circle of friends. It appears in the form of original content similar to friends. Through the

integration of hundreds of millions of high-quality user traffic and the use of professional data processing algorithms, it provides advertisers with a unique Internet social marketing platform. This form of advertising has the advantages of precise positioning, strong interaction, measurability, low cost, etc., which can help advertisers more effectively reach the target user group, improve brand awareness and sales.

2.3. Consumer Intention Definition

Consumer willingness refers to the price or behavioral tendency that consumers are willing to pay for a specific product or service. It is a manifestation of consumer psychological activity, reflecting consumers' desire and plan to buy products or services.

3. Research Methods

3.1. Comparative Analysis of Scientific Questionnaire Design and Hot List: Comprehensively Explore the Effect of Advertising in WeChat Circle of Friends

Using a scientifically designed questionnaire survey method: This paper studies a set of questionnaires containing multidimensional questions, aiming to comprehensively and deeply explore users' perception, attitude and privacy protection needs on WeChat moments advertising. The contents of the questionnaire cover a number of key aspects such as the basic information of users, the frequency of receiving advertisements, and the awareness of privacy protection to ensure the comprehensiveness and accuracy of the data.

Combining quantitative and qualitative research: The questionnaire design not only includes quantitative questions for statistical analysis, but also incorporates qualitative questions to obtain deeper and more detailed user feedback and perspectives. This approach contributes to a more complete understanding of user attitudes and behaviors.

Strict data collection and analysis procedures: In order to ensure the reliability and validity of the data, the study will follow strict data collection and analysis procedures. This includes steps such as pre-test questionnaires, formal distribution, data cleansing, and statistical analysis to ensure the accuracy and credibility of the final results.

At the same time, hot list analysis technology is used. With the help of advanced hot list analysis technology, this study will conduct an in-depth analysis of the popularity, user concerns and interaction of WeChat circle of friends advertising. In this way, we are able to more accurately grasp the user's concerns and points of interest in the current time period.

Combined with time series analysis: In order to more comprehensively understand the changing trend of user concerns, this study will also combine time series analysis techniques. This will help reveal how users' concerns change over time and predict future trends.

In the process of hot list comparison, this study conducted a comparative analysis from multiple dimensions (such as advertising types, delivery time, user groups, etc.). This approach provides a deeper understanding of the impact of different factors on advertising effectiveness and user behavior, thereby proposing more targeted optimization strategies.

3.2. Process of Questionnaire Issuance, Recovery and Data Analysis

Questionnaire distribution is completed through the questionnaire star platform with the help of the sample group provided by professional questionnaire companies. In the process of issuing the questionnaire, the importance of filling in the questionnaire and related precautions were explained in detail to the respondents to ensure that they fully understood the purpose and requirements of the survey. After the questionnaires were collected, we carried out careful screening work, eliminated

invalid questionnaires (such as incomplete filling, obvious errors, etc.), and counted the recovery rate of valid questionnaires. In general, the recovery rate should not be lower than 70%, in order to ensure the reliability and representativeness of the data. Then the data of the valid questionnaire was entered into the computer, and the data was cleaned and organized by using the data analysis software, which included deleting invalid answers, dealing with missing values, converting the answer format and so on. Finally, appropriate data analysis methods are adopted to process and analyze the collected data in depth.

3.3. Suppose the Effect of Advertising Precision on User Privacy Perception and Satisfaction

Suppose that the result is that advertising breaks the privacy of WeChat moments to a certain extent, especially when users receive a large number of non-personalized advertisements without explicit authorization or full knowledge. The more precise the AD delivery, the less likely it is to have a direct impact on privacy, because the content of the AD is closer to the user's interests. Users may be put off by frequent and non-personalized ads, which in turn affects their overall satisfaction and trust in WeChat moments. On the contrary, high-quality, personalized ads may be accepted by users to a certain extent and even enhance the user experience. The impression factor of this study is that the precision of advertising affects users' perception of privacy. Excessive advertising is distasteful to users and may lead them to believe that their private space is being excessively disturbed.
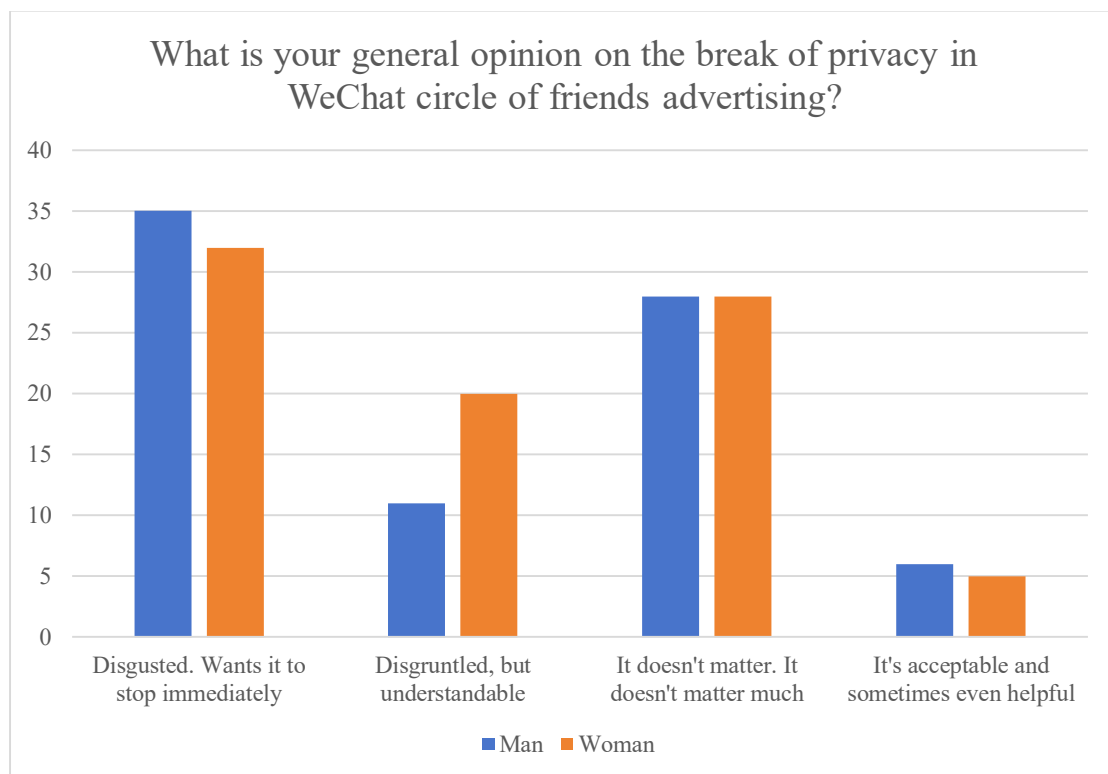
4. Research Results

Figure 1: What is your general opinion on the break of privacy in WeChat circle of friends advertising?

Slightly more men than women are very disgusted. Women are dissatisfied, but understandably at a higher rate than men. It may indicate that women have higher comprehension, indicating that gender is an influential factor in the perception of privacy in WeChat friend circle (Figure 1).
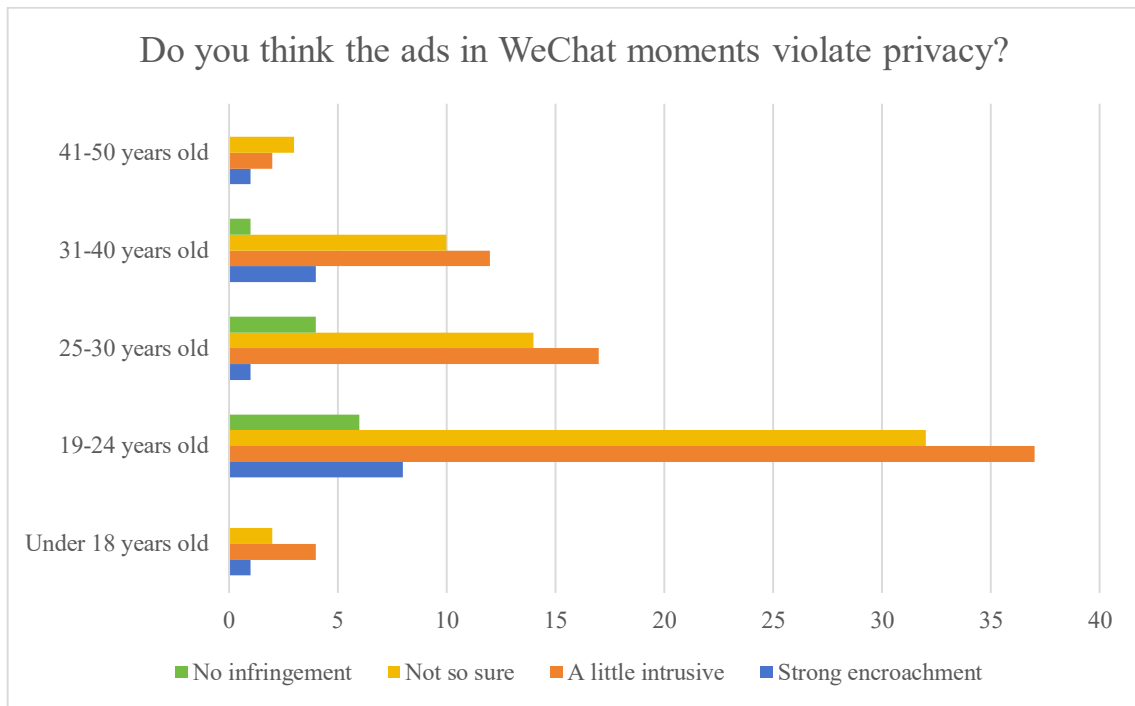
Figure 2: Do you think the ads in WeChat moments violate privacy?

Younger age groups are more likely to perceive advertising as intrusive, while the perception of advertising as intrusive decreases with age. The younger group has a relatively low evaluation of WeChat privacy, while the older group has a relatively high evaluation. This indicates that age is an influential factor in the perception of privacy in WeChat circle of friends (Figure 2).
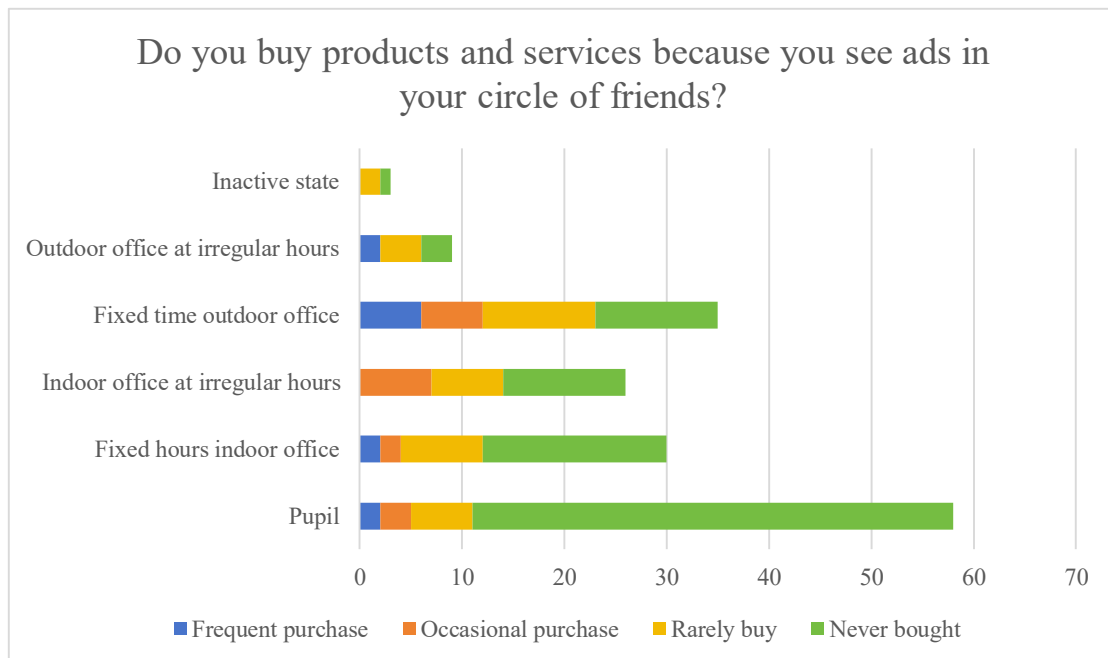

Figure 3: Do you buy products and services because you see ads in your circle of friends?

Younger age groups are more likely to be influenced by ads on moments, while older groups are relatively less willing to buy. Students, not working state less desire to buy (Figure 3).

Privacy analysis: Students and those who work indoors during fixed hours have a more negative attitude towards advertising, while other groups are relatively neutral. Different professional groups have different overall views on breaking the privacy of WeChat circle of friends advertising. Gender, age and occupation have a certain impact on the privacy cognition of WeChat. Most users believe that the impact on privacy is mainly due to the impact on the personal social atmosphere. 2. Concern analysis: Men are more sensitive to the impact of advertising on social atmosphere, while women are more concerned about the security of personal information and worry about the exposure of personal interests, hobbies and consumption habits. People under the age of 40 are less likely to be attracted by beautiful advertising designs and videos. Students are more concerned about the impact of advertisements on social atmosphere, while those who work indoors for a fixed time are more concerned about the exposure of advertisements to personal interests, hobbies and consumption habits. Fixed office hours and students are more worried about personal information security. Social interactions (like likes and comments from friends and acquaintances) are highly attractive across all demographics. 3. Purchase desire analysis Women pay more attention to social interaction rather than purchase behavior in the circle of friends, and men have a higher purchase desire than women in the circle of friends on WeChat.

5.   Research Discussion

Purchase intention is a combination of consumers' evaluation of products or brands and other factors, and purchase intention can predict consumers' consumption behavior [2]. WeChat circle of friends advertising hot list: The label of beautiful picture increases, and users can have a positive and important attitude towards the picture effect. Users have high sensitivity to visual elements, and the information transmission method with graphic and text can achieve better results [1]. In order to meet the demand, we should continue to produce high-quality picture effects, enhance the visual charm of the product, and stimulate the user's desire to buy and loyalty to the brand. The continued existence of star IP labels shows that users attach great importance to the star effect, the value recognition of brand cooperation, and the emotional resonance and identity. Continue to cooperate with star IP to promote user participation, attract more users' attention and interest, and then improve the conversion effect of advertising and brand value. The increase and decrease in story effects may reflect the user's tendency to quickly access product information and make choices, rather than spend a lot of time watching complex story content. More attention should be paid to direct and concise information delivery methods to quickly attract consumers' attention and facilitate purchase decisions. The high frequency of interactive atmosphere labels in the hot list of WeChat circle of friend's ads shows that users have a high demand for interactive atmosphere, especially during traditional festivals such as the Spring Festival. When advertising, you can make full use of this trend, through the design of creative and interesting interactive links, create a strong holiday atmosphere, attract users' attention and participation, and improve the conversion rate and communication effect of advertising. Correlation analysis 1. Users who use WeChat moments frequency buy more. 2. Users who see ads often buy more. According to the above conclusions, the following suggestions are made Students generally have a low opinion on the privacy protection of WeChat, and they are more inclined to create a safe and comfortable personal social environment. In view of the high proportion of minors in the user group, and this group shows a low direct purchase intention.

Therefore, it is suggested to adjust the advertising strategy on the WeChat platform and appropriately reduce the number of advertisings, so as to better fit the preferences and needs of user groups and create a purer and healthier social atmosphere. For those who use more frequently and show a strong purchasing power of the user group, given the user's high activity and purchase tendency, you can strategically increase the amount of advertising they receive, but you need to pay attention to maintain moderation and precision. For younger or male consumer groups, they generally

show a high desire and vitality to buy and can accurately recommend products that meet their interests and needs. Take a "small step fast run, high frequency touch" approach, through multiple, efficient and close to their social habits of marketing means, you can design a series of creative and interesting circle of friends interactive activities, such as "friends help enjoy discounts", "share to win gifts", etc., not only can effectively attract the attention of target users, but also through the social fission effect to expand the spread of advertising. At the same time, ensure that the advertising content directly and clearly shows the advantages and benefits of the product, so that young consumers can quickly capture the key information and stimulate their desire to buy. And so on to recommend different marketing strategies based on age. When planning advertising content, we should continue to pursue high-quality picture presentation, and enhance the attractiveness and visual charm of advertising with excellent visual effects. At the same time, deepen the cooperation strategy with the popular star IP, with its extensive influence and fan base, through the fascinating drama display, to attract more users' attention and resonance. In terms of content design, we strive to be concise and clear, ensure that the core selling points can be conveyed to the audience intuitively and quickly, reduce the threshold of understanding, and enhance the effectiveness of information transmission. In addition, the inclusion of interesting interactive links can not only improve the user experience, but also effectively extend the user's stay and engagement, thus promoting the improvement of advertising conversion rates. Through precise delivery, advertisers can ensure that the advertisement reaches the target audience who are really interested in the advertisement, avoid showing the advertisement to irrelevant or disinterested users, and thus improve the efficiency and cost of advertising [3].

6. A Psychological and Sociological Analysis of Advertising Privacy Perception and Consumer Behavior in WeChat Moments

The analysis of gender privacy from the perspective of psychology and sociology can be carried out from the following perspectives: gender awareness is an important part of consumers' self-awareness and affects consumer behavior [4]. Men, who tend to be more protective of privacy and boundaries, may react more strongly to intrusions of privacy, and therefore slightly more strongly than women. In their social roles, women tend to pay more attention to the harmony of interpersonal relationships and tend to be understanding and tolerant, which may lead them to have a more tolerant attitude towards the privacy problems brought by WeChat circle of friend's advertisements.

According to the age difference, the young group can be divided into the young group and the old group. The young group has a higher acceptance of new technologies and new things, but at the same time, they also pay more attention to the protection of personal space and privacy, so they have a stronger sense of aggression towards advertising. With the growth of age, individuals may gradually adapt to and accept the existence of advertising in the network environment, and their sensitivity to privacy is relatively low.

The occupational differences can be divided into students and indoor office workers and other occupations. Students and indoor office workers usually have more time to use social media and feel the impact of advertising more directly, so negative attitudes are more obvious. Other professions have a relatively neutral perception of advertising due to differences in usage habits and concerns.

The same is true for attention analysis. Gender difference results in men paying more attention to the impact of advertising on social atmosphere, possibly because men are more inclined to maintain the purity of social environment. Women are more worried about the security of personal information and the exposure of interests, hobbies and consumption habits, which reflects the importance of women's personal privacy protection.

From the perspective of age structure, the group under 40 years old is less attractive to advertising design and video, possibly because they pay more attention to practicality and information quality. At the professional level, students are more concerned about the impact of advertising on social

atmosphere, which is related to their frequent use of social media and their emphasis on social experience. Indoor office workers are more worried about personal information security and interests of exposure, perhaps because they pay more attention to when using social media to protect personal information.

Social interaction is highly attractive in all types of people, which reflects people's psychological needs to seek identification and belonging on social media.

According to the analysis of purchase intention, women pay more attention to social interaction and purchase behavior is relatively minor in terms of gender, which may be related to the fact that women are more inclined to establish and maintain interpersonal relationships on social media.

Men are more likely to buy than women, possibly because they are more susceptible to advertising when using social media.

In terms of age, young people are more likely to be influenced by advertising and have a higher purchase intention, which may be related to their curiosity and desire to explore new things. The older group is relatively less willing to buy, possibly because they are more rational and cautious, and have stronger immunity to advertising.

Vocational middle school students and non-working state are less willing to buy, probably because they have limited economic ability and low demand for advertised products. The extent to which other occupations are influenced by advertising varies from individual to individual.

7.   Correlation analysis and suggestion

Frequency of use and purchase behavior also have a certain impact. Users who use WeChat moments more frequently buy more, which reflects the influence of social media on consumer behavior. Therefore, it is suggested that for high frequency users, the amount of advertising can be moderately increased, but the accuracy and quality of advertising should be maintained. In terms of advertising exposure and purchasing behavior, the more users who often see ads buy, it indicates that advertising exposure has a positive impact on purchasing behavior. For high purchasing power user groups, you can strategically increase advertising exposure, but pay attention to the creativity and attractiveness of advertising.

From the perspective of marketing strategy, for young groups and male consumer groups, creative and interesting interactive activities can be designed to stimulate the desire to buy. For different age and occupational groups, differentiated marketing strategies can be developed to meet their specific needs and preferences. Focus on advertising content design, the pursuit of high-quality picture presentation and visual effects, enhance the attractiveness of advertising. Deepen cooperation with popular star IP to attract user attention with its influence and fan base. The content design is concise and clear to ensure that the core selling points can be intuitively communicated to the audience. Psychology has proposed two specific operation methods, namely, repeated reminding and maintaining consumers' sense of pleasure. However, it is particularly important to note that in marketing management, products are the foundation. Therefore, continuous trust still requires that products can fully meet consumers' needs, and product satisfaction is the only rule for consumers to maintain continuous trust [5]. Integrate fun and interactive links to improve user experience and engagement and promote AD conversion rates.

To sum up, gender, age and occupation are important factors that affect users' perception of privacy, focus and desire to buy advertisements in WeChat moments. In the formulation of advertising strategies, the influence of these factors should be fully considered, and differentiated marketing strategies should be formulated to meet the needs and preferences of different user groups.

8. Conclusion

Gender, age and occupation have a certain impact on the privacy cognition of WeChat. For example, at the gender level, the proportion of men who dislike the invasion of privacy by advertising is slightly higher than that of women, and they are more concerned about the impact of advertising on the social atmosphere and have a higher desire to buy. Women are more understanding and more worried about the security of personal information and the exposure of interests. At the age level, the young group had stronger perception, while the old group had higher evaluation. Young people are less attracted to fine design; Young people are susceptible to advertising. Occupational differences lead to different views, students and permanent office workers pay more attention to information exposure; Students and non-workers are less likely to buy. Most users believe that the impact on privacy is mainly due to the impact on the personal social atmosphere. Most users believe that the impact on privacy is mainly due to the impact on the personal social atmosphere. There are still some problems in this study, such as insufficient sample size, incomplete consideration of samples in the current study, and further study is needed. At the same time, the knowledge learned is relatively general and the methods adopted are also relatively simple, so the current viewpoint may not be thoroughly analyzed. Therefore, it is hoped that in the future study and life, more comprehensive and in-depth research and continuous improvement of social media advertising. In order to solve the shortcomings of this study, the future direction is proposed. First, expand the scope of domestic literature research and conduct more in-depth research. The second is a comparative analysis of domestic and foreign literature, and the third is a more comprehensive study, simulating the analysis results through data models. Pay attention to the combination of theory and demonstration.

References

[1] Yang Ying & Niu Chengying.(2024). Research on Precision Marketing Strategy based on Social media. Time-honored Brand Marketing (16),18-20.

[2] Zhao Yixuan & Zhao Fucai.(2021). The interactive relationship between consumers' purchase intention, psychological distance and regulatory matching. Business Economics Research (22),76-79.

[3] Xie Luning.(2024). Research on Big Data targeted advertising marketing strategy based on consumer preferences. Time-honored Brand Marketing (13),18-20.

[4] Xu W. (2024). Analysis on cultural consumption psychology of different consumer groups. Future and Development (04),7+20-25.

[5] Peng Zhuo.(2021). The influence of consumer psychology on purchasing decisions. China market (6), 129-130. The doi: 10.13939 / j.carol carroll nki ZGSC. 2021.06.129.