

Assessing the Impact of Personalized Recommendation on TikTok on People's Purchasing Behavior

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Abstract:

There have been increasing concerns over the impact of personalized recommendations on people's behavior since many social media platforms used by modern people have such algorithms. Notably, influences on people's purchasing behavior are usually analyzed to provide useful implications for both consumers and companies. This article investigates the impact of personalized recommendations on TikTok on people's purchasing decisions. A primary research method, a survey, is used to gather people's opinions toward personalized recommendations. It reveals that people of different age groups respond differently toward personalized recommendations but it is certain that the recommendation system on TikTok has an impact on people regarding their purchasing decision.

Keywords: personalized recommendation, impact, purchasing decision

1 Introduction

1.1 Context

In 2023, TikTok adapted its recommendation algorithm in response to the European Union's Digital Services Act (DSA) [1]. Users are now given the option to turn off personalized content recommendations. For TikTok, this means altering how it collects and utilizes user data to generate content suggestions, thus allowing users more autonomy in their content experience without the influence of targeted algorithms. This recent situation provides a unique

context to study how personalized recommendations differ from non-personalized recommendations and how they affect consumer behavior.

As a result, a research question "To what extent does personalized recommendation on TikTok affect people's decision-making in purchasing products and services" is designed, and would then be attempted to answer by analyzing the general public's opinion toward it and the reasons behind people's trust and distrust toward it.

1.2 Definition of Key Terminology

The main terminology in the research question that

requires a more specific definition is “personalized recommendation” and, more specifically, the “personalized recommendation function on TikTok.” According to TikTok’s official website, its personalized recommendation system, which powers the “For you” feed, ranks videos mainly based on three factors, which are user interaction, such as likes, shares, comments, and follows; video details like sounds, background music and hashtags; and device settings, mainly users’ language preference, country [2]. In addition, the system adjusts recommendations as users interact with content, ensuring each feed is unique. It also works to introduce diverse content to avoid repetitive patterns and filter bubbles. New users start with broad categories or popular videos, refining recommendations through their interactions.

1.3 Rationale

There are three main reasons why this investigation is chosen to be conducted.

Firstly, it is considered that the idea of this investigation starts from people’s personal experiences and is practical for understanding consumer behaviour. Most people have the experience of influencing by personalized recommendations to make purchasing decisions. For example, we often buy certain products based on the influencers we like or watch live-streaming commerce. So, this investigation is considered relevant to people’s daily lives and experiences. Investigating how users’ purchasing desires and actual buying behaviour are affected by TikTok’s personalized recommendation mechanism can provide insights into modern consumer behaviour.

Secondly, the research is considered relatively easy to conduct first-hand research. Many people would also have a say in this due to the commonness of the problem in modern society. As a result, it would be suitable to form first-hand research such as surveys, focused group research, and interviews to know the general public’s opinions and attitudes toward personalized recommendations. The first-hand research will be valuable backup information that can be used to supplement the second-hand resources being searched.

Thirdly, this investigation would be helpful with further study on related fields. It is believed that this investigation can also provide useful insights for further study on other fields related to Behaviour Economics, such as improving marketing strategies for TikTok, which is a business management focus, or exploring more about the advanced recommendation algorithm in machine learning, which contribute s to a broader field of technology and data science.

1.4 Thesis Statement and Structure Overview

This study focuses on investigating how TikTok’s person-

alized recommendation system affects users’ purchasing and buying behaviour. The main hypothesis is that personalized recommendations on TikTok will increase people’s purchasing desire and lead to more impulse purchases. However, this sign of increase might also differ from numerous demographic traits as people’s purchasing ability is often affected by factors such as age, gender, and occupation.

The next section, which is section 2, will provide a literature review of the existing research in this field, an evaluation of the limitations of these studies, and how it is planned to improve these problems. The subsequent section is used to explain the experiment carried out to gather first-hand data and the results of the experiment. Then in section 4, the collected data are carefully analysed, along with the occurring limitations and evaluation of the experiment method. The final section offers a synthesis of findings, the conclusion, and their implications for future research in the field of behaviour economics.

2 Literature Review

2.1 Existing Research in this Field

Based on the literature being read through, it is found that the existing research on the topic chosen, which is the impact of personalized recommendations on consumer behavior spans various disciplines, and mostly, it comes down to the field of behavioral economics and consumer psychology.

Basically, these studies mainly focus on investigating the personal recommendation functions on E-commerce and Social Media platforms. The reason for this is that personalized recommendation functions are mostly seen on these platforms and it is true that these platforms are where people get into contact and are influenced by the functions most. All the academic articles being read suggested that these recommendations help tailor the shopping experience to individual preferences to some extent and also increase the likelihood of purchases and enhance overall consumer satisfaction [3].

There is an overall trend in personalized marketing, which is shown by the existing research and literature in this area. Studies highlight the trends in personalized marketing, noting a significant increase in the use of data-driven strategies to tailor recommendations. This approach has been shown to improve customer engagement and loyalty [4].

Additionally, the literature being read through reflects a relative consistency in conclusions. Specifically, empirical studies have commonly confirmed that personalized recommendations lead to a higher desire for customers to purchase and a higher purchase rate for the overall prod-

ucts. These existing studies also show a trend of employing methods such as data analysis from online platforms, user surveys, and behavioural tracking and observation to understand how personalized content drives consumer actions [5].

Some of the academic papers being read also evaluate the effect of personalized recommendation from a more psychological perspective. Studies conclude that personalized recommendations leverage cognitive biases and heuristics. The reason for that is that personalized recommendations make use of familiarity and relevance to capture consumer attention and foster a sense of personal connection to the recommended products, which enhances purchasing behaviour [6].

2.2 Possible Limitations of these Studies

A further evaluation of the limitations that appeared in these studies will be given in the company of a specific one, which is called *The Impact of Personalized Recommendations on Consumer Purchase Decisions on TikTok – A Case Study of College Students*. This study aims to investigate how personalized recommendations on TikTok influence college students' purchasing decisions and the mechanisms behind this influence. However, it is found that several potential research gaps could be addressed in future studies to enhance the understanding of this phenomenon.

Firstly, it is discovered that this study focuses solely on college students. Future research should include a more diverse demographic sample. For instance, it can include people in different age groups, people with different occupations, and people who are living in different geographical locations to understand if the impact of personalized recommendations varies across different segments of the population.

In addition, this study is centered on TikTok and mentioned little about other common social media platforms. However, comparing the effectiveness of personalized recommendations across different social media such as Facebook, Instagram, and Twitter or other common social media used by the Chinese such as WeChat, Taobao, etc. can provide a broader understanding of how platform-specific features and user interfaces impact consumer behavior.

It does not specify the types of products that are recommended by TikTok based on the viewers' personalized preferences. However, examining how personalized recommendations affect different product categories can also provide insights into whether certain types of products are more likely to benefit from personalization. For example, people might be more willing to make purchasing decisions when they are recommended with less expensive

goods compared to luxuries. This would be helpful for marketers to adjust their strategies based on the products' nature.

Lastly, these studies mainly focus on the positive outcomes of personalized recommendations. However, future research should also try to consider the impact of negative experiences with personalized recommendations in order to balance the arguments and provide multiple perspectives to think about. For example, it might be possible to talk about irrelevant or intrusive suggestions and how these affect overall consumer trust and engagement.

2.3 Improvements

Firstly, as it is decided to use a survey as the first-hand research method, the population group being investigated will not be limited to only college students, instead, the participants' age range will be asked in the preposition part. This ensures that age can be used as an affecting factor when evaluating the participants' purchasing behavior.

Additionally, TikTok is still going to be the primary source of information and data, but studies on other similar social platforms, such as Amazon, Netflix, etc. will also be looked at. This ensures that the study is not biased and that a more comprehensive perspective on the problem can be developed.

And lastly, instead of only focusing on the positive effect of personalized recommendations, the arguments will be balanced by also researching the potential negative effect of this function. This could make the argument more comprehensive. Also, the term "product" would be carefully avoided to cease generalizing the things people purchase. Instead, different types of products will be specified and see if people's purchasing decisions vary because the products they are being recommended have different price levels and different quality concerns, etc.

3 Experiment and Data Collect

3.1 Methodology

A mixed-methods approach is employed in this investigation, combining an online survey with questions. This design allows for a more holistic perspective and address effectively the question of our research. In the questionnaire, the participants will first be presented with a clarification that declares that their personal views on the impact of TikTok's personalized recommendation on their purchasing behavior will be collected, and their answers will only be used as primary data to complete a research paper.

To be more specific, data collection was conducted using an online survey platform between June 29th and July 1st,

2024. A total of 474 participants effectively submitted their answers. The survey consisted of 19 questions covering demographic information and specific issues related to the research topic.

3.2 Design of the Questions

To collect as much information as required, the survey is decided to consist of a variety of different types of questions, which are listed below:

1. Basic demographic information (age, gender, employment status)
2. Basic conceptual information (concept of personalized recommendation)
3. Use of TikTok (frequency, purchasing behaviour)
4. Use of other social media
5. People’s attitude toward personalized recommendation (frequency, impact on purchasing habits, trust and distrust)

the questions included in the survey were first designed based on previously read academic articles and the main focus of the research then a built-in test (BIT) was conducted between the group members to see if the logic and rationality of the questions were reasonable, also to see if the options can cover different thoughts people usually have. After the problems that occur in the BIT are fixed, the formal survey is distributed online to gather sufficient data, and a time limit of seven days is set to provide us with time to fully process and analyze the data afterward with convenience.

4 Data Analysis

4.1 Analysis

The data achieved from the survey results are analyzed in

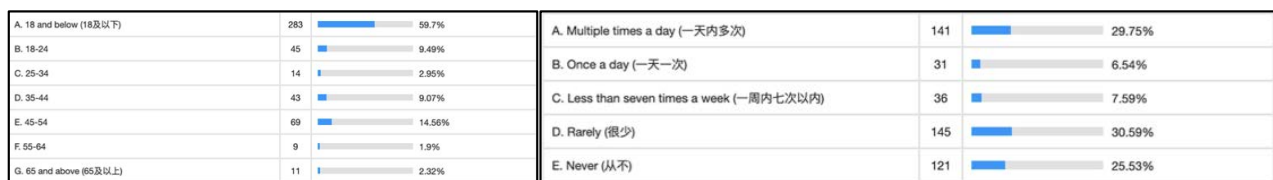


Figure 1 TikTok Users’ Portrait

4.1.2 Cognition and Use of Personalized Recommendation

As shown in Figure 2 below, more than half of the participants (about 63.71%) were aware of the concept of personalized recommendation. In addition, personalized recommendation is highly recognized on TikTok, with about 64.56% of participants aware of its existence. However, most participants (about 35.65%) never interact with personalized recommendations.

this section from 7 dimensions, which are “TikTok users’ portrait”, “cognition and use of personalized recommendation”, “the impact of personalized recommendations on purchasing behavior”, “purchase behavior and satisfaction”, “trust and distrust factors”, “other social platforms and shopping habits”, “gender and occupation distribution”.

4.1.1 TikTok Users’ Portrait

From Figure 1 below, it can be seen that most participants who filled out the survey were 18 years old and below, accounting for about 60%, followed by users in the 45-54 age group, accounting for about 15%. In terms of frequency of use, most of the samples use TikTok multiple times a day which might give us the prerequisite explaining why people’s purchasing behaviors can be affected by personalized recommendations. They would spend a very long time on TikTok, which means they have higher chances of being exposed to personalized recommendations. In addition, the algorithms operating behind such platforms often become more accurate as people spend more time browsing, increasing the adaptability of personalized recommendations. However, users who never use TikTok also account for a relatively high proportion, reaching 25.53%. Suggesting that our research might not be that accurate since the majority of the samples do not even have the chance to experience personalized recommendations, let alone change their purchasing behavior accordingly. This result is probably affected by the people who take the surveys, as according to source analysis, are mostly our fellow students or our parents, who seem not to be mainstream TikTok users.

So, it can be seen that our samples are self-aware of the concept of personalized recommendation and its presence on TikTok. What is important is that this shows that they are self-conscious that their behaviors are being affected by personalized recommendations to some extent. Being aware that personalized recommendations might mean that our samples have already formed certain kinds of perspectives (biased or not) toward the function, which might result in some later answers with a stronger tendency.

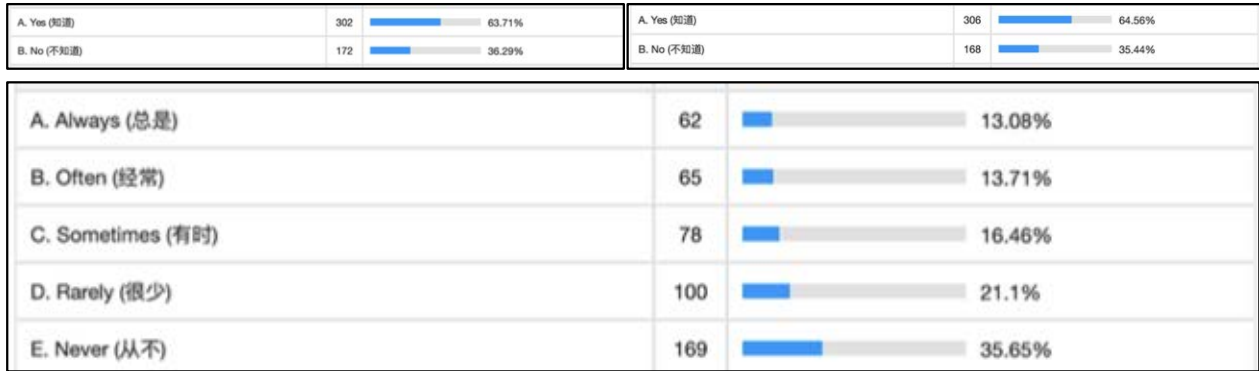


Figure 2 Cognition and Use of Personalized Recommendation

4.1.3 The Impact of Personalized Recommendations on Purchasing Behavior

Figure 3 below shows that the majority of participants (about 50.21%) are neutral about the impact of personalized recommendations on their purchasing behavior. A considerable proportion of participants (about 28.06%) believe that TikTok’s personalized recommendation does not affect their purchasing behavior. There are also 36.08% of users who never make purchases because of TikTok’s personalized recommendations. This again suggests that the impact of personalized recommendations on people’s purchasing habits might not be as big as we previously assumed.

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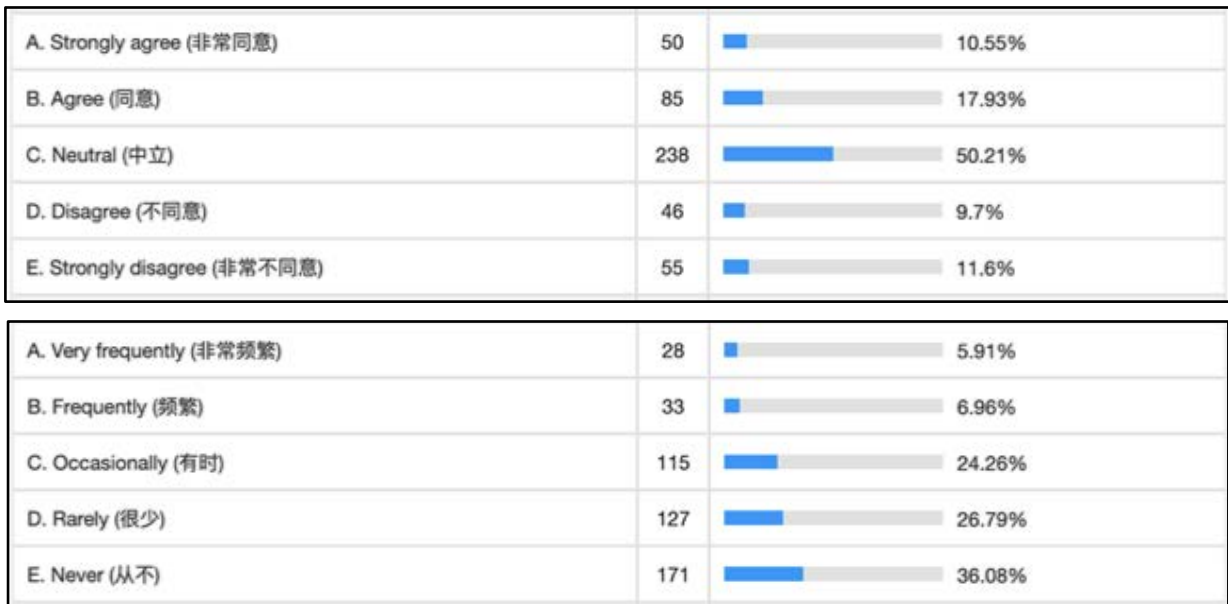


Figure 3 The Impact of Personalized Recommendations on Purchasing Behaviour

4.1.4 Purchase Behavior and Satisfaction

From Figure 4 below, it can be seen that the majority of participants (about 46.62%) spend less than 100 yuan per month on online shopping given that there is a large proportion of people under 18 who are not fully economi-

cally independent. 24.47% of participants never buy anything based on TikTok’s personalized recommendations. 47.89% of participants hold a neutral attitude toward products purchased through TikTok’s personalized recommendation.

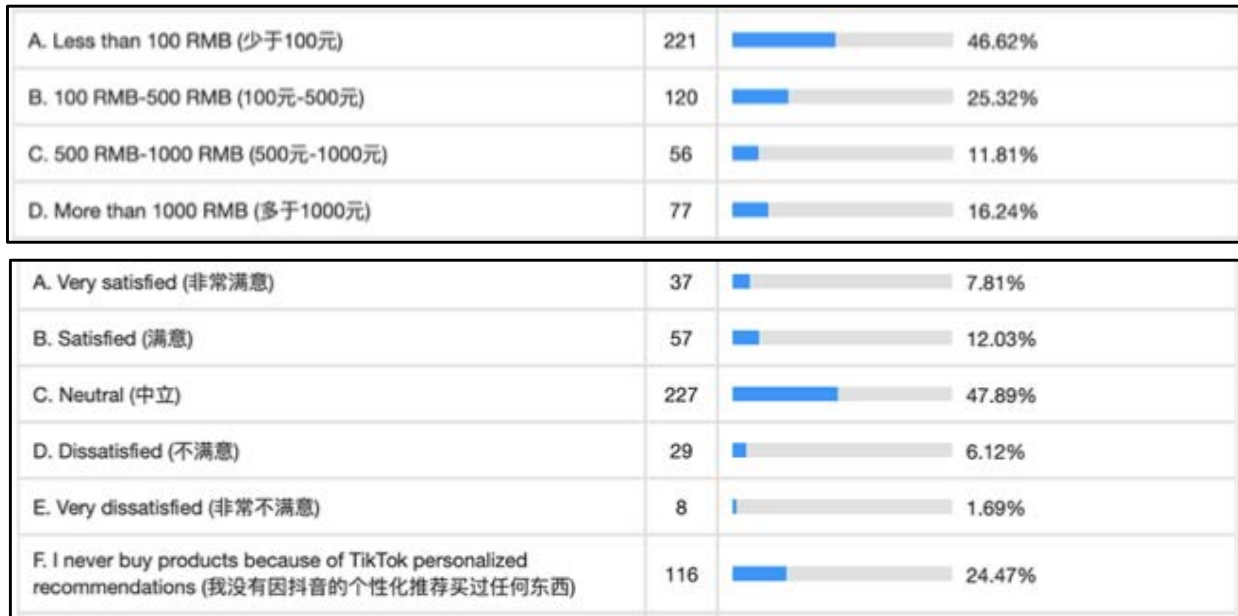


Figure 4 Purchase Behaviour and Satisfaction

4.1.5 Trust and Distrust Factors

And now in figure 5, participants are encouraged to come up with reasons why they trust or distrust TikTok's personalized recommendations.

60.55% of participants hold a neutral attitude toward TikTok's personalized recommendations. The biggest distrust factor was "fear of personal data being tracked and analyzed" (34.39%), and 28.06% of participants also believed that "TikTok's recommended content shows bias or a narrow perspective". People generally express their worries about privacy problems that come hand and hand with personalized recommendations. In addition, people's dis-

trust in TikTok's recommendations varies more compared to the reasons for their trust.

To further explain why data privacy issues have become people's major factor of distrust in TikTok, evidence is found to show that TikTok is reported to be collecting an excessive amount of private information from its users [7]. Additionally, people have the inclination to avoid losses over acquiring an equivalent number of gains. This suggests that people might be invoked with stronger resistance toward using TikTok due to the potential leakage of personal information and privacy they might face. This leads to an increase in the distrust of TikTok, which causes these losses [8].

A. Completely trust (完全相信)	33		6.96%
B. Mostly trust (基本相信)	46		9.7%
C. Neutral (中立)	287		60.55%
D. Mostly distrust (基本不相信)	49		10.34%
E. Completely distrust (完全不相信)	59		12.45%

A. The thought of my data being tracked and analyzed without my consent makes me uneasy and distrustful of the recommendations. (一想到我的数据在未经我同意的情况下被跟踪和分析, 我就感到不安和不信任这些推荐)	163		34.39%
B. I feel that the recommendations often show a biased or narrow perspective, making me question the fairness and inclusivity of the algorithm. (我觉得这些推荐往往表现出偏见或狭隘的视角, 这让我质疑算法的公平性和包容性)	112		23.63%
C. The way TikTok seems to push certain trends or products feels manipulative, making me skeptical about the true intentions behind the recommendations. (抖音似乎在推动某些趋势或产品, 这种方式给人一种操纵的感觉, 这让我对这些推荐背后的真实意图产生了怀疑)	133		28.06%
D. The varying quality of content suggested to me raises doubts about the effectiveness and reliability of TikTok's recommendation system. (抖音向我推荐的内容质量参差不齐, 这让我对它的推荐系统的有效性和可靠性产生了怀疑)	86		18.14%
E. The emphasis on sponsored or promotional content over organic videos suggests that TikTok's recommendations might be more about profit than user preference. (比起有机视频, 我感觉抖音更强调赞助或促销内容, 这让我认为抖音的推荐可能更多地是出于利润考虑, 而不是用户偏好)	59		12.45%
F. The highly engaging nature of the recommendations feels designed to keep me hooked, which makes me wary of its impact on my time and attention. (推荐的高度吸引人性感觉是为了让我着迷而设计的, 这让我警惕它对我的时间和注意力的影响)	46		9.7%
G. The tendency to repeatedly show similar types of content makes me doubt the diversity and novelty of TikTok's recommendation system. (重复展示相似类型内容的倾向让我对抖音推荐系统的多样性和新颖性产生怀疑)	55		11.6%
H. I never use TikTok (我没有使用过抖音)	97		20.46%
I. I have other things I want to add (除以上这些, 我还有想要补充的)	17		3.59%

Figure 5 Trust and Distrust Factors

4.1.6 Other Social Platforms and Shopping Habits

As shown in figure 6, WeChat is the most commonly used social platform with personalized recommendation functions after TikTok, accounting for about 69.41%. However, it can be seen that options I to L are seldom chosen by

the samples. They are more commonly used apps outside China, which means that the samples focused more on domestic applications. Most participants (about 42.19%) believe that TikTok's personalized recommendation has not changed their overall shopping habits.

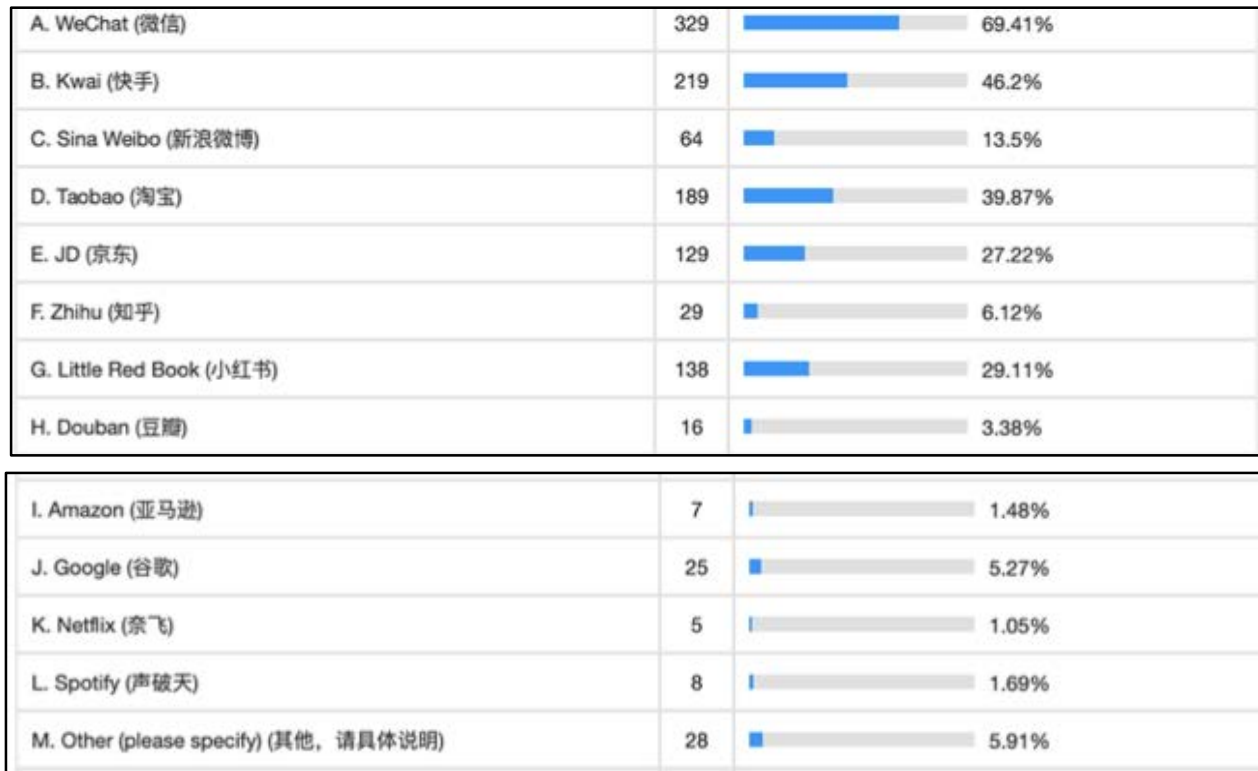


Figure 6 Other Social Platforms and Shopping Habits

4.1.7 Gender and Occupation Distribution

Women accounted for nearly half of the participants. In Figure 7, most of the participants were high school students, accounting for about 48.95%.

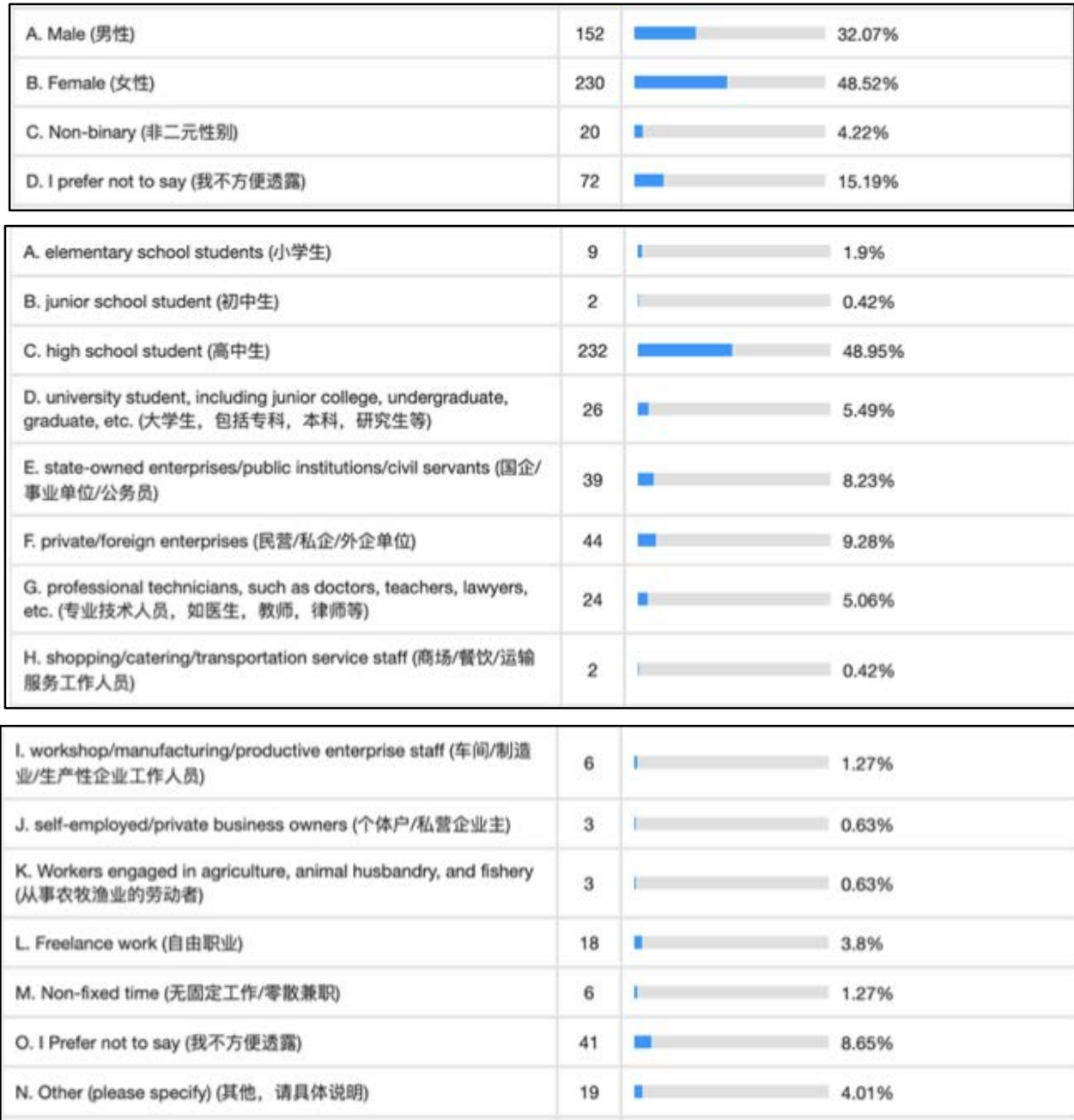


Figure 7 Gender and Occupation Distribution

5 Conclusion

5.1 Conclusion

In conclusion, TikTok’s personalized recommendation function has had a certain impact on users’ purchase behavior and experience, but a considerable proportion of participants still hold a neutral or negative attitude. In addition, the biggest proportion of participants who filled

in the survey are high school students, which suggests that this population group is considered to be largely affected by TikTok. However, their purchasing power is undermined due to their absence from the stage of economic freedom. Participants’ trust in personalized is scattered, with some participants concerned about data privacy issues, while others have doubts about the quality and impartiality of recommended content. In the future, personalized recommendation algorithms should be further

optimized, and certain policy decisions should be made to improve users' experience and gain users' trust.

5.2 Policy Implication

Some policy implications can, therefore, be suggested to TikTok for it eases its data privacy-related issues, which are proven to be one of the biggest concerns of the general public.

Firstly, TikTok should provide its users with more freedom and control over private information. For instance, users should be given the option to opt out of functions such as data sharing and delete private data at their wish. To further transparentize the process, the company should implement more trust transfer strategies, such as showcasing endorsements from trusted third parties and security certifications which might greatly help to enhance TikTok's users' trust in it. Nonetheless, TikTok should keep strict compliance and adherence with relevant regulations that monitor privacy issues, such as data laws like CCPA and GDPR [9].

5.3 Strength

Based on existing research and experiments conducted in this field, the biggest strength of the investigation is that the research is not limited to one age group. Instead, the responses to personalized recommendations from people who are in different age groups with different occupations are tried to observe. Additionally, the reasons behind people's trust and distrust toward TikTok and its personalized

recommendation system are also being observed, which are not commonly seen in the existing research.

5.4 Limitation and Future Study

However, it is important to note that this investigation still possesses weaknesses. Firstly, the samples are still not diverse enough because it is still hard for us to reach a larger population regarding their age, occupation, and what TikTok has impacted on them. Furthermore, this reason caused our investigation to be slightly mismatched with the previous studies done in this field since a lot of participants fulfilling our survey suggest that they don't even use TikTok, so naturally, TikTok's impact on them would be small. Additionally, the experiment method we chose also has its limitations, such as its difficulty in reaching a representative sample of the population, its influence on respondents' behavior or attitude (mode effect), and certain nonresponse biases.

This investigation has provided future studies with data foundation and some other research directions, but in the future, the problems mentioned in the limitation part are expected to be resolved to promote the accuracy of the research.

Appendix

Appendix #1 - Survey Questions

Survey for a Behavioral Economic Research (一个行为经济学研究的调查问卷)

Clarification (声明)

1. The purpose of this questionnaire is to collect people's views on the impact of TikTok's personalized recommendations on purchasing behavior, the results of the survey will be used as primary data to complete a research paper.
(本次调查问卷的目的为收集人们对于抖音个性化推荐对消费行为影响的看法, 问卷结果将用于完成一篇研究论文)

2. This questionnaire may involve you providing some personal information, if you begin to fill in, you will be deemed to consent to our collection and processing of such personal information; if you do not agree, you can opt out at any time.
(本次调查问卷可能涉及您提供的个人信息, 如您开始填写, 将被视为您同意我们收集并处理该等个人信息; 如不同意, 您可以随时选择退出)

3. We will not disclose your personal information to any third party without your prior consent.
(未经过您的事先同意我们不会向任何第三方披露您的个人信息)

*1. What is your age group?
(你所在的年龄区间是?)

A. 18 and below (18及以下)

B. 18-24

C. 25-34

D. 35-44

E. 45-54

F. 55-64

G. 65 and above (65及以上)

* 2. How often do you use TikTok?

(你使用抖音的频率是?)

- A. Multiple times a day (一天内多次)
- B. Once a day (一天一次)
- C. Less than seven times a week (一周内七次以内)
- D. Rarely (很少)
- E. Never (从不)

* 3. Do you know the concept of personalized recommendations?

(你是否知道“个性化推荐”这个概念?)

According to University of Helsinki, Finland, personalized recommendation suggests user choices based on their preferences and behaviors, enhancing engagement and satisfaction. This method tailors suggestions in various domains like news, academic research, and online learning, providing a unique experience for each user.

(根据芬兰赫尔辛基大学的研究, 个性化推荐会根据用户的偏好和行为为他们提供选择, 从而提高用户的参与度和满意度。这种方法为新闻、学术研究和在线学习等不同领域量身定制建议, 为每个用户提供独特的体验。)

- A. Yes (知道)
- B. No (不知道)

* 4. Do you know about the personalized recommendations on TikTok?

(你是否知道抖音上有个性化推荐功能存在?)

- A. Yes (知道)
- B. No (不知道)

* 5. How often do you interact with personalized recommendations on TikTok?

(你使用抖音上个性化推荐的频率是怎样的?)

- A. Always (总是)
- B. Often (经常)
- C. Sometimes (有时)
- D. Rarely (很少)
- E. Never (从不)

* 6. Have personalized recommendations on TikTok influenced your purchasing decisions?

(你是否认为抖音的个性化推荐功能影响你购买任何物品的选择?)

- A. Strongly agree (非常同意)
- B. Agree (同意)
- C. Neutral (中立)
- D. Disagree (不同意)
- E. Strongly disagree (非常不同意)

* 7. Which of the following aligns more with your opinion of personalized recommendations on TikTok?

(以下哪个选项更符合你对抖音上的个性化推荐的想法?)

- A. I find personalized recommendations highly relevant and often discover new products that I am interested in purchasing. (我发现推荐非常相关, 并且经常发现我有兴趣购买的新产品)
- B. The recommendations are relevant, and I occasionally find products that interest me. (我认为推荐是相关的, 并且我偶尔会发现感兴趣的产品)
- C. The recommendations are neither particularly relevant nor irrelevant. They don't significantly influence my purchasing decisions. (我认为推荐既不是特别相关, 也不是完全不相关, 但它们对我的购买决定影响不大)
- D. The recommendations are mostly irrelevant, and I rarely find products that interest me. (我认为推荐大多是无关紧要的, 并且我很少能找到我感兴趣的产品)
- E. The recommendations are completely irrelevant and do not influence my purchasing behavior. (我认为这些推荐完全无关紧要, 并且它们不会影响我的购买行为)
- F. I find the personalized recommendations annoying or intrusive, and they negatively impact my experience on TikTok. (我觉得推荐很烦人, 而且对我在抖音上的体验产生了负面影响)
- G. I never use TikTok, but I am willing to experience its personalized recommendations in the future. (我从来没有使用过抖音, 但是我愿意在未来体验个性化推荐这个功能)
- H. I never use TikTok, and I don't want to experience its personalized recommendations in the future either. (我从来没有使用过抖音, 并且我在未来也不愿意体验这个功能)

* 8. How often have you purchased because of a personalized recommendation on TikTok?

(你通常因为TikTok上的个性化推荐而购物吗?)

- A. Very frequently (非常频繁)
- B. Frequently (频繁)
- C. Occasionally (有时)
- D. Rarely (很少)
- E. Never (从不)

*9. What types of products have you purchased due to TikTok recommendations? (Select all that apply)
(你通常会因为抖音的个性化推荐购买如下哪种类型的产品?) (请选择所有符合描述的类型)
【多选题】

- A. Clothing and Accessories (服装及配饰)
- B. Beauty and Personal Care (美容及个人护理产品)
- C. Electronics (电子产品)
- D. Home Goods (家居用品)
- E. Food and Beverages (食物及饮料)
- F. I never buy any types of products because of TikTok recommendations (我不会因为抖音的个性化推荐购买任何东西)
- G. Other (please specify) (其他, 请具体说明)
- H. I never buy any types of products because of TikTok recommendations because I don't use TikTok (我不会因为抖音的个性化推荐购买任何东西因为我不使用抖音)

*10. How much do you spend on online shopping on average every month?
(你平均每月在网络购物上花费多少钱?)

- A. Less than 100 RMB (少于100元)
- B. 100 RMB-500 RMB (100元-500元)
- C. 500 RMB-1000 RMB (500元-1000元)
- D. More than 1000 RMB (多于1000元)

*11. In your point of view, how many of these purchasing decisions you made monthly are influenced by TikTok's personalized recommendations?
(在你看来, 你每月做出的消费决定有多少是受到抖音的个性化推荐影响的?)

- A. Nearly 100%, but I my purchaisng decisions are also influenced by other social platform with personalized recommendations(我基本全部的消费决定都是受到抖音的个性化推荐影响的, 但我也受到其他具有个性化推荐功能的社交平台影响)
- B. Nearly 100% (我基本全部的消费决定都是受到抖音的个性化推荐影响的)
- C. 70% - 90%, but I my purchaisng decisions are also influenced by other social platform with personalized recommendations (我大概有70%到90%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)
- D. 70%-90% (我大概有70%到90%的消费决定是受到抖音的个性化推荐影响)
- E. 40%-60%, but I my purchaisng decisions are also influenced by other social platform with personalized recommendations (我大概有40%到60%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)
- F. 40%-60% (我大概有40%到60%的消费决定是受到抖音的个性化推荐影响)
- G. Less than 40%, but I my purchaisng decisions are also influenced by other social platform with personalized recommendations (我大概只有不到40%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)
- H. Less than 40% (我大概只有不到40%的消费决定是受到抖音的个性化推荐影响)
- I. 0%, but I my purchaisng decisions are also influenced by other social platform with personalized recommendations (我不认为自己的消费决定受到抖音的个性化推荐影响, 但我会受到其他具有个性化推荐功能的社交平台影响)
- J. 0% (我的消费行为完全不会被任何具有个性化推荐的社交平台所影响)

*12. Apart from TikTok, what other social platforms with personalized recommendation do you usually visit?
(除了抖音, 你通常还会使用什么具有个性化推荐的社交平台?)
【多选题】

- A. WeChat (微信)
- B. Kwai (快手)
- C. Sina Weibo (新浪微博)
- D. Taobao (淘宝)
- E. JD (京东)
- F. Zhihu (知乎)
- G. Little Red Book (小红书)
- H. Douban (豆瓣)
- I. Amazon (亚马逊)
- J. Google (谷歌)
- K. Netflix (奈飞)
- L. Spotify (声破天)
- M. Other (please specify) (其他, 请具体说明)

*13. How satisfied are you with the purchases made from TikTok personalized recommendations? (你对通过抖音个性化推荐购买的产品有多满意?)

A. Very satisfied (非常满意)

B. Satisfied (满意)

C. Neutral (中立)

D. Dissatisfied (不满意)

E. Very dissatisfied (非常不满意)

F. I never buy products because of TikTok personalized recommendations (我没有因抖音的个性化推荐买过任何东西)

*14. How much do you trust TikTok's personalized recommendations? (你有多相信抖音的个性化推荐?)

A. Completely trust (完全相信)

B. Mostly trust (基本相信)

C. Neutral (中立)

D. Mostly distrust (基本不相信)

E. Completely distrust (完全不相信)

*15. What do you think is the source of your trust in TikTok's personalized recommendations? (Select at most three of them that most apply) (你认为你对抖音的个性化推荐的信任来源于什么?) (最多选择三个你认为最符合描述的)

【最多选择3项】

A. The accuracy of the recommendations seems like pure algorithmic magic; it always knows what I want to see next. (推荐的准确性像是魔法一样, 总是知道我接下来想看什么)

B. My overall experience with TikTok has always been positive, making me trust its recommendations as part of a seamless browsing journey. (我对抖音的总体体验一直是积极的, 我相信它的推荐是浏览过程中不可缺失的一部分)

C. Seeing my friends and influencers I follow engaging with similar content builds my confidence in TikTok's suggestions. (看到我关注的朋友和有影响力的人也受到个性化推荐的影响让我对抖音的建议充满信心)

D. The recommendations consistently align with my interests and preferences, making me believe in their relevance and reliability. (这些建议始终符合我的兴趣和偏好, 使我相信它们的相关性和可靠性)

E. TikTok has introduced me to new hobbies and products that I never knew I would like, boosting my curiosity in its recommendations. (抖音向我介绍了一些我从来不知道自己会喜欢的新爱好和产品, 让我对它的个性化推荐充满好奇)

F. My previous purchases based on TikTok's suggestions have been satisfying, reinforcing my trust in its recommendations. (我之前根据抖音的建议进行的购买一直令人满意, 这增强了我对它的推荐的信任)

G. The personalized touch in every video feels tailored just for me, making me trust the platform's ability to understand my preferences. (每个视频的个性化感觉都是为我量身定制的, 让我相信平台有能力了解我的喜好)

H. I never use TikTok (我没有使用过抖音)

I. I have other things I want to add (除以上这些, 我还有想要补充的)

*16. What do you think is the source of your distrust in TikTok's personalized recommendations? (Select at most three of them that most apply) (你认为你对抖音的个性化推荐的不信任来源于什么?) (选择最多三个你认为最符合描述的)

【最多选择3项】

A. The thought of my data being tracked and analyzed without my consent makes me uneasy and distrustful of the recommendations. (一想到我的数据在未经我同意的情况下被跟踪和分析, 我就感到不安和不信任这些推荐)

B. I feel that the recommendations often show a biased or narrow perspective, making me question the fairness and inclusivity of the algorithm. (我觉得这些推荐往往表现出偏见或狭隘的视角, 这让我质疑算法的公平性和包容性)

C. The way TikTok seems to push certain trends or products feels manipulative, making me skeptical about the true intentions behind the recommendations. (抖音似乎在推动某些趋势或产品, 这种方式给人一种操纵的感觉, 这让我对这些推荐背后的真实意图产生了怀疑)

D. The varying quality of content suggested to me raises doubts about the effectiveness and reliability of TikTok's recommendation system. (抖音向我推荐的内容质量参差不齐, 这让我对它的推荐系统的有效性和可靠性产生了怀疑)

E. The emphasis on sponsored or promotional content over organic videos suggests that TikTok's recommendations might be more about profit than user preference. (比起有机视频, 我感觉抖音更强调赞助或促销内容, 这让我认为抖音的推荐可能更多地是出于利润考虑, 而不是用户偏好)

F. The highly engaging nature of the recommendations feels designed to keep me hooked, which makes me wary of its impact on my time and attention. (推荐的高度吸引人性感觉是为了让我着迷而设计的, 这让我警惕它对时间和注意力的影响)

G. The tendency to repeatedly show similar types of content makes me doubt the diversity and novelty of TikTok's recommendation system. (重复展示相似类型内容的倾向让我对抖音推荐系统的多样性和新颖性产生怀疑)

H. I never use TikTok (我没有使用过抖音)

I. I have other things I want to add (除以上这些, 我还有想要补充的)

TIANYI ZENG, ZIXIN GU, LE XIONG, YIYUE JIN

*13. How satisfied are you with the purchases made from TikTok personalized recommendations?
(你通过抖音个性化推荐购买的产品有多满意?)

- A. Very satisfied (非常满意)
- B. Satisfied (满意)
- C. Neutral (中立)
- D. Dissatisfied (不满意)
- E. Very dissatisfied (非常不满意)
- F. I never buy products because of TikTok personalized recommendations (我没有因抖音的个性化推荐买过任何东西)

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(你有多相信抖音的个性化推荐?)

- A. Completely trust (完全相信)
- B. Mostly trust (基本相信)
- C. Neutral (中立)
- D. Mostly distrust (基本不相信)
- E. Completely distrust (完全不相信)

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(你认为你对抖音的个性化推荐的信任来源于什么?) (最多选择三个你认为最符合描述的)
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- A. The accuracy of the recommendations seems like pure algorithmic magic; it always knows what I want to see next. (推荐的准确性像是魔法一样, 总是知道我接下来想看什么)
- B. My overall experience with TikTok has always been positive, making me trust its recommendations as part of a seamless browsing journey. (我对抖音的总体体验一直是积极的, 我相信它的推荐是浏览过程中不可或缺的一部分)
- C. Seeing my friends and influencers I follow engaging with similar content builds my confidence in TikTok's suggestions. (看到我关注的朋友和有影响力的人也受到个性化推荐的影响让我对抖音的建议充满信心)
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- F. My previous purchases based on TikTok's suggestions have been satisfying, reinforcing my trust in its recommendations. (我之前根据抖音的建议进行的购买一直令人满意, 这增强了我对它的推荐的信任)
- G. The personalized touch in every video feels tailored just for me, making me trust the platform's ability to understand my preferences. (每个视频的个性化感觉都是为我量身定制的, 让我相信平台有能力了解我的喜好)
- H. I never use TikTok (我没有使用过抖音)
- I. I have other things I want to add (除以上这些, 我还有想要补充的)

*16. What do you think is the source of your distrust in TikTok's personalized recommendations? (Select at most three of them that most apply)

(你认为你对抖音的个性化推荐的不信任来源于什么? 选择最多三个你认为最符合描述的)
【最多选择3项】

- A. The thought of my data being tracked and analyzed without my consent makes me uneasy and distrustful of the recommendations. (一想到我的数据在未经我同意的情况下被跟踪和分析, 我就感到不安和不信任这些推荐)
- B. I feel that the recommendations often show a biased or narrow perspective, making me question the fairness and inclusivity of the algorithm. (我觉得这些推荐往往表现出偏见或狭隘的视角, 这让我质疑算法的公平性和包容性)
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- D. The varying quality of content suggested to me raises doubts about the effectiveness and reliability of TikTok's recommendation system. (抖音向我推荐的内容质量参差不齐, 这让我对它的推荐系统的有效性和可靠性产生了怀疑)
- E. The emphasis on sponsored or promotional content over organic videos suggests that TikTok's recommendations might be more about profit than user preference. (比起有机视频, 我感觉抖音更强调赞助或促销内容, 这让我认为抖音的推荐可能更多地是出于利润考虑, 而不是用户偏好)
- F. The highly engaging nature of the recommendations feels designed to keep me hooked, which makes me wary of its impact on my time and attention. (推荐的高度吸引人性感觉是为了让我着迷而设计的, 这让我警惕它对时间和注意力的影响)
- G. The tendency to repeatedly show similar types of content makes me doubt the diversity and novelty of TikTok's recommendation system. (重复展示相似类型内容的倾向让我对抖音推荐系统的多样性和新颖性产生怀疑)
- H. I never use TikTok (我没有使用过抖音)
- I. I have other things I want to add (除以上这些, 我还有想要补充的)

*17. Do you think TikTok's personalized recommendations changed your overall shopping habits?
(你是否认为自己的消费习惯因为抖音的个性化推荐而改变?)

- A. Yes, significantly (是的, 非常显著)
- B. Yes, somewhat (是的, 一定程度上)
- C. No, but it has made me more aware of certain products (不, 但我确实开始关注特定类型的产品)
- D. No, my shopping habits never change because of TikTok's personalized recommendations (我的消费习惯完全没有因为抖音的个性化推荐而被改变)

*18. What is your gender?
(你的性别是?)

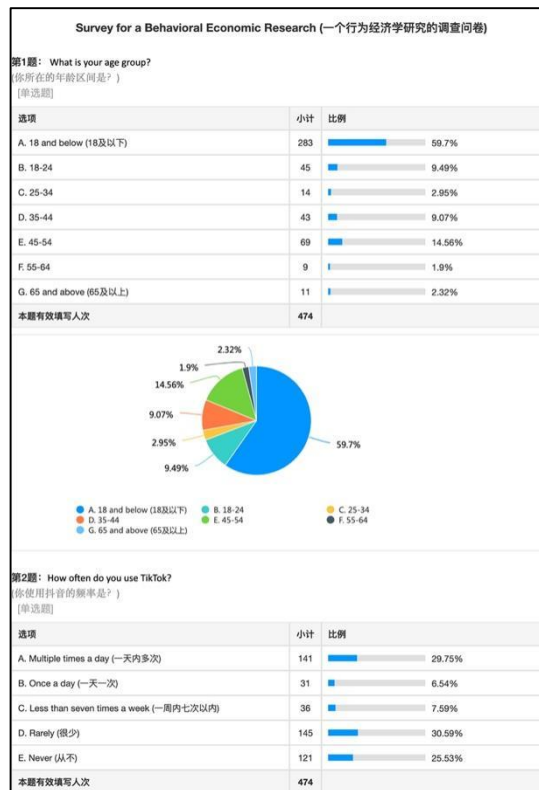
- A. Male (男性)
- B. Female (女性)
- C. Non-binary (非二元性别)
- D. I prefer not to say (我不方便透露)

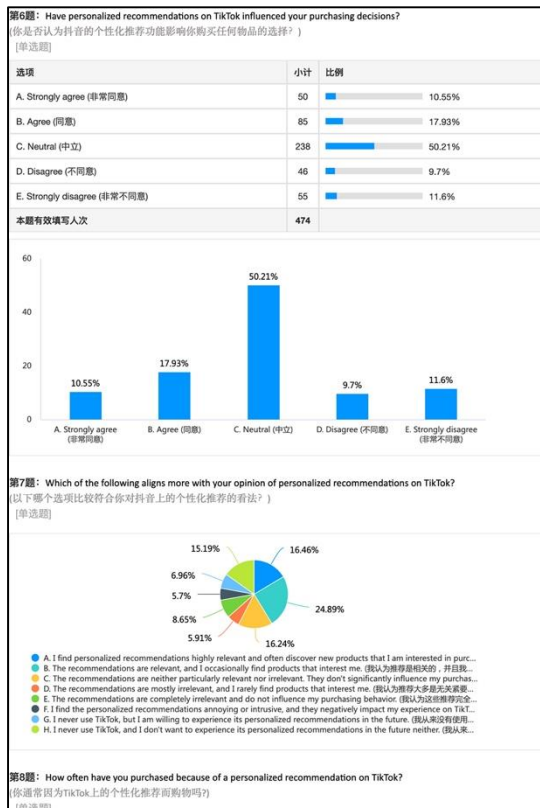
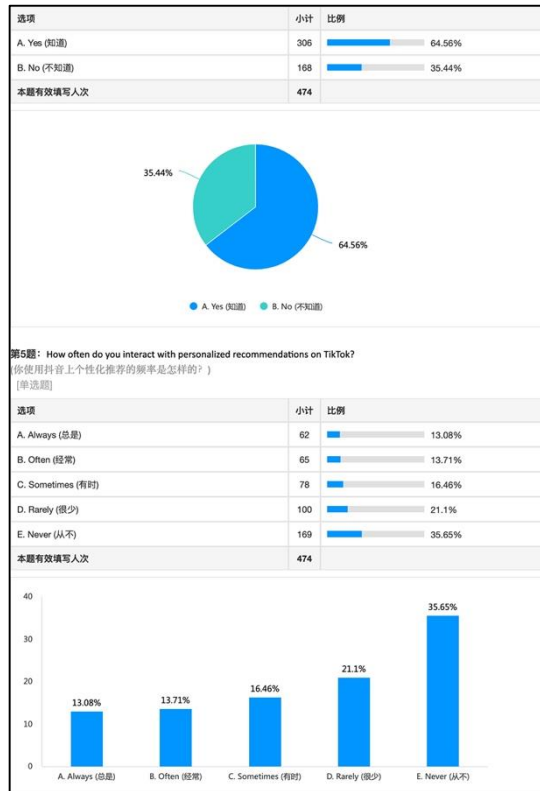
*19. What is your current employment status?
(请问你的职业是?)

- A. elementary school students (小学生)
- B. junior school student (初中生)
- C. high school student (高中生)
- D. university student, including junior college, undergraduate, graduate, etc. (大学生, 包括专科, 本科, 研究生等)
- E. state-owned enterprises/public institutions/civil servants (国企/事业单位/公务员)
- F. private/foreign enterprises (民营/私企/外企单位)
- G. professional technicians, such as doctors, teachers, lawyers, etc. (专业技术人员, 如医生, 教师, 律师等)
- H. shopping/catering/transportation service staff (商场/餐饮/运输服务工作人员)
- I. workshop/manufacturing/productive enterprise staff (车间/制造业/生产性企业工作人员)
- J. self-employed/private business owners (个体户/私营业主)
- K. Workers engaged in agriculture, animal husbandry, and fishery (从事农牧渔业的劳动者)
- L. Freelance work (自由职业)
- M. Non-fixed time (无固定工作/零散兼职)

- O. I Prefer not to say (我不方便透露)
- N. Other (please specify) (其他, 请具体说明)

Appendix #2 - Survey Results





TIANYI ZENG, ZIXIN GU, LE XIONG, YIYUE JIN

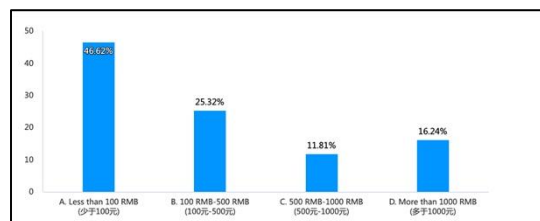
选项	小计	比例
A. Very frequently (非常频繁)	28	5.91%
B. Frequently (频繁)	33	6.96%
C. Occasionally (有时)	115	24.26%
D. Rarely (很少)	127	26.79%
E. Never (从不)	171	36.08%
本题有效填写人次	474	

第9题: What types of products have you purchased due to TikTok recommendations? (Select all that apply)
 (你通常会因为抖音的个性化推荐购买如下哪种类型的产品?) (请选择所有符合描述的类型)
 [多选题]

选项	小计	比例
A. Clothing and Accessories (服装及配件)	129	27.22%
B. Beauty and Personal Care (美容及个人护理产品)	71	14.98%
C. Electronics (电子产品)	61	12.87%
D. Home Goods (家居用品)	81	17.09%
E. Food and Beverages (食物及饮料)	124	26.16%
F. I never buy any types of products because of TikTok recommendations (我不会因为抖音的个性化推荐购买任何东西)	63	13.29%
G. Other (please specify) (其他, 请具体说明)	34	7.17%
H. I never buy any types of products because of TikTok recommendations because I don't use TikTok (我不会因为抖音的个性化推荐购买任何东西因为我不使用抖音)	146	30.8%
本题有效填写人次	474	

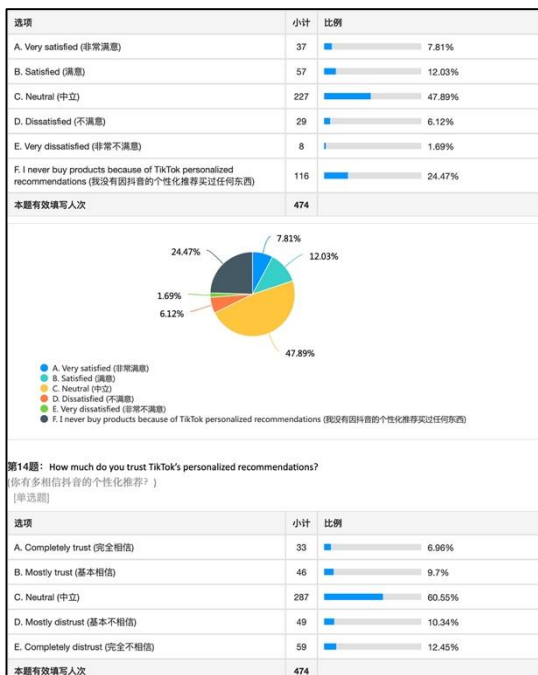
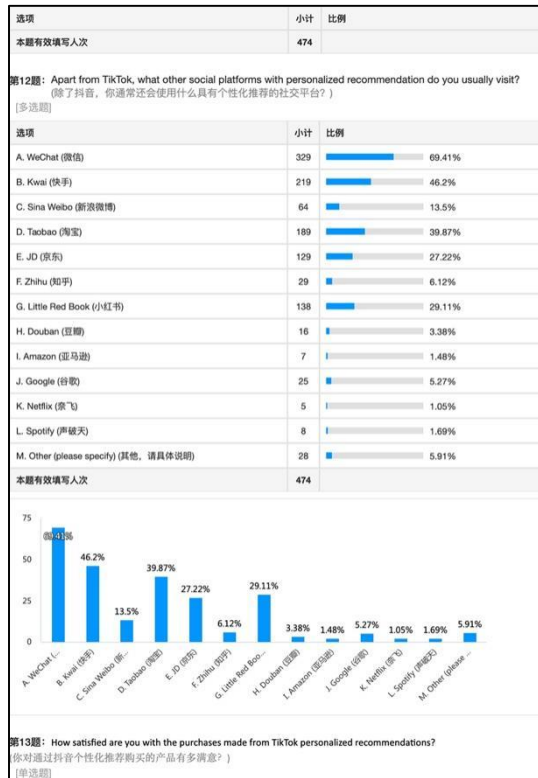
第10题: How much do you spend on online shopping on average every month?
 (你平均每月在网上购物上花费多少钱?)
 [单选题]

选项	小计	比例
A. Less than 100 RMB (少于100元)	221	46.62%
B. 100 RMB-500 RMB (100元-500元)	120	25.32%
C. 500 RMB-1000 RMB (500元-1000元)	56	11.81%
D. More than 1000 RMB (多于1000元)	77	16.24%
本题有效填写人次	474	

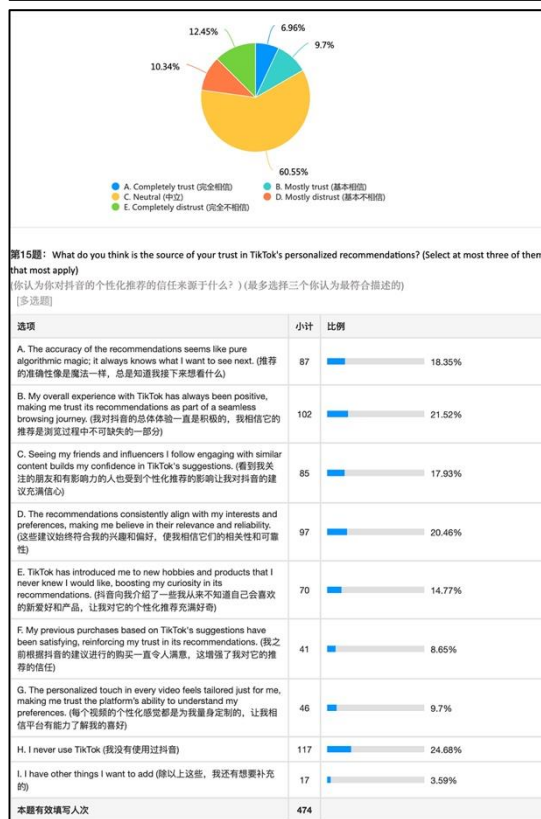


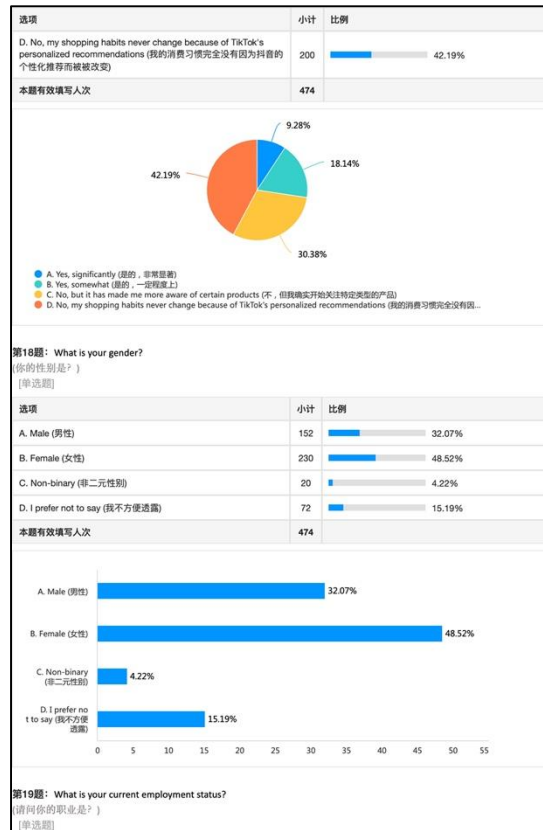
第11题: In your point of view, how many of these purchasing decisions you made monthly are influenced by TikTok's personalized recommendations?
 (在你看来, 你每月做出的消费决定有多少是受到抖音的个性化推荐影响的?)
 [单选题]

选项	小计	比例
A. Nearly 100%, but I my purchasing decisions are also influenced by other social platform with personalized recommendations (我基本全部的消费决定都是受到抖音的个性化推荐影响的, 但我也受到其他具有个性化推荐功能的社交平台影响)	50	10.55%
B. Nearly 100% (我基本全部的消费决定都是受到抖音的个性化推荐影响的)	30	6.33%
C. 70% - 90%, but I my purchasing decisions are also influenced by other social platform with personalized recommendations (我大概有70%到90%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)	34	7.17%
D. 70% - 90% (我大概有70%到90%的消费决定是受到抖音的个性化推荐影响)	18	3.8%
E. 40% - 60%, but I my purchasing decisions are also influenced by other social platform with personalized recommendations (我大概有40%到60%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)	21	4.43%
F. 40% - 60% (我大概有40%到60%的消费决定是受到抖音的个性化推荐影响)	19	4.01%
G. Less than 40%, but I my purchasing decisions are also influenced by other social platform with personalized recommendations (我大概只有不到40%的消费决定是受到抖音的个性化推荐影响, 但我也受到其他具有个性化推荐功能的社交平台影响)	29	6.12%
H. Less than 40% (我大概只有不到40%的消费决定是受到抖音的个性化推荐影响)	39	8.23%
I. 0%, but I my purchasing decisions are also influenced by other social platform with personalized recommendations (我不认为自己的消费决定受到抖音的个性化推荐影响, 但我会受到其他具有个性化推荐功能的社交平台影响)	91	19.2%
J. 0% (我的消费行为完全不会被任何具有个性化推荐的社交平台所影响)	143	30.17%



TIANYI ZENG, ZIXIN GU, LE XIONG, YIYUE JIN





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[ban-national-security-hearing/index.html](https://www.cnn.com/2023/03/24/tech/tiktok-ban-national-security-hearing/index.html)

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