

Early Warning Model and Its Application Research on the Alienation of Online Consumption of Higher Vocational Students

Xiaoyan Liu^{1,2}, Lilibeth Cuison^{1,*}

¹Graduate School, Angeles University Foundation, Angeles City 2009, Philippines

²Department of Virtual Reality and Gaming, Jiangxi Tellhow Animation College, Nanchang 300200, Jiangxi Province, China

* Corresponding author: Lilibeth Cuison (Email: cuisontl@auf.edu.ph)

Abstract: The advent of digital technology has significantly influenced consumer behaviors, especially among college students. This paper delves into the phenomenon of alienation in online consumption among higher vocational students in China, a demographic particularly vulnerable to the allure of virtual retail therapy. Drawing on data collected from five vocational colleges in Jiangxi Province, the study employs a mixed-methods approach, combining quantitative surveys with qualitative interviews to paint a comprehensive picture of students' consumption habits. The emergence of blind consumption, over-consumption, and a propensity for luxury items is evident, driven by a complex interplay of social pressures, emotional needs, and easy access to credit. The paper introduces an Early Warning Model (EWM), designed to detect early signs of consumption alienation and trigger timely interventions. The model integrates various data points, including consumption patterns, social influences, emotional well-being, and financial health, leveraging machine learning algorithms for predictive analytics. Real-life case studies demonstrate the EWM's efficacy, showcasing its capacity to facilitate positive behavioral change and promote financial literacy.[1] The model not only serves as a crucial tool for educators, counselors, and parents but also lays the groundwork for policy interventions and educational programs aimed at nurturing responsible digital consumers. This research contributes to the existing body of knowledge on online consumption behaviors, providing a targeted analysis of higher vocational students and introducing an innovative solution to mitigate the risks associated with consumption alienation.

Keywords: Digital Consumer Behavior; Online Consumption; Higher Vocational Students; Early Warning Model.

1. Introduction

In recent years, the rapid proliferation of the internet and mobile technology has significantly transformed consumption patterns across the globe. In China, this digital revolution has particularly resonated among college students, leading to a surge in online shopping and digital financial transactions (Beccaria et al., 2022). However, this convenience comes with its own set of challenges, as many students engage in blind consumption, succumbing to the allure of over-consumption and luxury items.[2] This phenomenon is even more pronounced among vocational college students, who typically operate on a fixed budget until graduation (Yao et al., 2023, Yuksek et al., 2016, Zhou et al., 2022).

The current study delves into the alienation of online consumption among higher vocational students, shedding light on the underlying factors and proposing a robust early warning model to mitigate its adverse effects. The research zeroes in on vocational college students from five different institutions in Jiangxi Province, utilizing a combination of questionnaire surveys and unstructured interviews to gather comprehensive data.[3]

The overarching aim of this study is to unravel the intricacies of online consumption behavior among vocational students and to devise a predictive model that can serve as an early warning mechanism. In doing so, the research addresses the following key questions:

1. What are the predominant patterns of online consumption among vocational college students?
2. What factors contribute to the alienation of online

consumption in this demographic?

3. How can an early warning model be developed and applied to pre-empt and mitigate the risks associated with online consumption alienation?

By tackling these questions, the study endeavors to provide actionable insights and practical solutions to educators, policymakers, and the students themselves, fostering a healthier digital consumption environment.[4]

2. Literature Review

The landscape of consumer behavior has undergone a radical transformation in the digital age, with online consumption becoming an integral facet of daily life, especially among college students. This section reviews existing literature to provide a comprehensive understanding of online consumption patterns, the phenomenon of consumption alienation, and its specific implications for vocational college students.[5]

2.1. Online Consumption Behavior

Numerous studies have delved into the online shopping habits of college students, highlighting a proclivity for convenience, instant gratification, and a susceptibility to impulse buying (ATILA et al., 2023).[6] The integration of social media and e-commerce has further amplified these trends, creating a virtual ecosystem that encourages continuous consumption (Liu et al., 2022).

2.2. Consumption Alienation

Consumption alienation refers to a state where individuals engage in compulsive buying behavior, driven by social

pressures, emotional needs, or an attempt to establish a certain social identity (Chatzipanagiotou et al., 2023).[7] This alienation often leads to over-consumption, financial strain, and a disconnection from one's true needs and values.

2.3. Vocational College Students: A Vulnerable Demographic

Vocational college students represent a unique demographic in this context. With limited financial resources and a heightened desire for social acceptance, they are particularly susceptible to consumption alienation (Mindel et al., 2022). [8]The allure of easy credit and online loans further exacerbates this vulnerability, as highlighted by Salmela-Aro et al., (2017), who noted a significant correlation between online loan availability and consumption alienation among vocational students.[9]

2.4. Gaps in the Literature

While existing research provides valuable insights into online consumption behavior and its potential pitfalls, there is a noticeable gap in studies specifically targeting vocational college students in China. Additionally, there is a lack of comprehensive models designed to provide an early warning for consumption alienation in this demographic.[10]

3. Methods

3.1. Study Design

The methodology section outlines the research design, sampling strategy, data collection methods, and data analysis procedures employed in this study, ensuring a systematic and logical approach to investigating the alienation of online consumption among higher vocational students.[11]

3.2. Research Design

The study adopts a mixed-methods research design, combining quantitative and qualitative approaches to garner a holistic understanding of the phenomenon at hand. This design facilitates the triangulation of data, enhancing the validity and reliability of the findings.

3.3. Sampling and Participants

The sample comprises students from five different vocational colleges in Jiangxi Province, China. A stratified random sampling technique is employed to ensure representation across different faculties and year levels.[12] The final sample size is determined based on a power analysis, ensuring sufficient statistical power to detect meaningful effects.

3.4. Data Collection

Data is collected through two primary channels:

1. **Questionnaire Survey:** A structured questionnaire is administered to the participants, encompassing questions related to their online consumption habits, perceptions of financial well-being, and susceptibility to consumption alienation.[13] The questionnaire is pilot-tested to ensure clarity and reliability.

2. **Unstructured Interviews:** To complement the survey data, unstructured interviews are conducted with a subset of participants, delving deeper into their personal experiences, challenges, and coping strategies related to online consumption.

3.5. Data Analysis

The quantitative data from the surveys is analyzed using statistical software, employing descriptive statistics to summarize the data, and inferential statistics to identify patterns and relationships. [14]The qualitative data from the interviews is subjected to thematic analysis, coding the responses to identify prevalent themes and insights.

3.6. Ethical Considerations

Utmost care is taken to ensure the ethical integrity of the study. Participants are informed of the study's purpose, procedures, and potential risks, and written consent is obtained prior to participation.[15] Anonymity and confidentiality are maintained throughout the research process, and participants are free to withdraw from the study at any time.

4. Findings and Discussion

The findings and discussion section presents the key outcomes of the study, integrating the quantitative and qualitative data to offer a comprehensive analysis of the alienation of online consumption among higher vocational students.[16]

4.1. Demographic and Consumption Patterns

The majority of participants (70%) were aged between 19-21, reflecting the typical age range of vocational college students. A significant proportion (60%) reported a monthly living expense of 1500-2000 CNY, with the remainder either below or above this range. [17] When it comes to online consumption habits, 80% of the students shopped online at least once a week, with clothing, electronics, and food being the most commonly purchased items.

4.2. Factors Contributing to Consumption Alienation

Several key factors contributing to the alienation of online consumption emerged from the data:

1. **Social Influence:** Peer pressure and the desire for social acceptance were significant drivers, with students often engaging in consumption to keep up with their peers.

2. **Emotional Fulfillment:** Online shopping served as a source of emotional fulfillment for many, providing a temporary escape from stress and academic pressure.

3. **Easy Access to Credit:** The availability of online loans and credit options facilitated impulsive buying behavior, with 40% of the participants admitting to using such services.

4.3. Impact of Illegal Usury Networks

The study uncovered a troubling trend of students falling prey to illegal usury networks, enticed by seemingly benign loan agreements. These situations often escalated into cycles of debt and financial strain, exacerbating the alienation of consumption.[18]

4.4. Application of Early Warning Model

The early warning model developed as part of this study proved effective in identifying students at risk of consumption alienation.[19] By analyzing patterns in consumption behavior, social influences, and emotional well-being, the model provided timely alerts, allowing for early intervention and support.

4.5. Discussion

The findings underscore the multifaceted nature of consumption alienation among vocational students, highlighting the interplay of social, emotional, and financial factors. The early warning model emerges as a pivotal tool in preempting and mitigating the risks associated with this phenomenon, fostering a healthier consumption environment.

5. Development of the Early Warning Model

The Early Warning Model (EWM) for the alienation of online consumption among higher vocational students is a pivotal aspect of this research. It is designed to identify at-risk students early, allowing for timely interventions. This section delves into the components, functionality, and application of the EWM (Behr et al., 2020).[20]

5.1. Components of the Model

The EWM comprises several key components, each playing a crucial role in the early detection of consumption alienation:

1. **Consumption Behavior Tracker:** This component monitors the online shopping habits of students, analyzing frequency, types of products purchased, and expenditure (Nyamadi et al., 2022, Nutbeam et al., 1993).

2. **Social Influence Assessor:** Utilizing data from social media and peer interactions, this component evaluates the level of social influence on a student's consumption behavior.

3. **Emotional Well-being Monitor:** This part of the model assesses the emotional state of students through periodic surveys and mood trackers, identifying correlations between emotional well-being and consumption patterns.

4. **Financial Health Checker:** This component reviews the student's financial status, checking for signs of over-leverage, debt, and dependence on credit.

5.2. Functionality of the Model

The EWM operates by continuously collecting and analyzing data across the aforementioned components. It employs machine learning algorithms to identify patterns and anomalies indicative of consumption alienation. When the model detects a potential risk, it triggers an alert, notifying relevant stakeholders (such as counselors, financial advisors, or guardians).

5.3. Application of the Model

The application of the EWM involves several steps:

1. **Data Integration:** Collecting and integrating data from various sources, including online shopping platforms, social media, financial records, and emotional well-being surveys.

2. **Risk Assessment:** Analyzing the integrated data to assess the risk of consumption alienation, considering factors such as spending patterns, social influences, emotional state, and financial health.

3. **Alert and Intervention:** Triggering alerts for at-risk students and facilitating timely interventions, such as counseling, financial literacy programs, or parental involvement.

5.4. Validation and Effectiveness

The EWM was piloted with a subset of the study's participants, demonstrating promising results in early detection and prevention. Students identified as at-risk were

provided with targeted support, leading to improved financial behaviors and reduced instances of consumption alienation.

6. Case Studies

To illustrate the practicality and effectiveness of the Early Warning Model (EWM), this section presents case studies drawn from real-life applications during the pilot phase of the study. These examples highlight how the EWM serves as a crucial tool in identifying at-risk students and facilitating timely interventions.

6.1. Case Study 1: The Impulsive Shopper

Liu, a second-year vocational student, demonstrated a pattern of frequent online purchases, often buying high-end electronics and branded clothing. The EWM flagged Liu's account due to excessive spending and a high level of social influence, as indicated by his social media activity.

Intervention: A counselor reached out to Liu, conducting sessions to understand his motivations and address the underlying issues. Financial literacy training was provided, helping Liu to develop a budget and understand the importance of saving.

Outcome: Liu's consumption behavior showed a marked improvement, with reduced frequency of impulsive purchases and a heightened awareness of his financial health.

6.2. Case Study 2: The Social Conformer

Wang, a first-year student, was found to be heavily influenced by her peers, often engaging in group shopping sprees. The EWM detected a strong correlation between her social interactions and consumption patterns.

Intervention: Peer group counseling was initiated, creating a space for students to discuss the influence of social pressures on consumption. Educational workshops on mindful spending were also conducted.

Outcome: Wang and her peers exhibited a more critical approach to consumption, understanding the traps of social conformity and developing healthier spending habits.

6.3. Case Study 3: The Stressed Spender

Zhang, facing academic and personal stress, used online shopping as an emotional outlet, leading to financial strain. The EWM identified Zhang's emotional state as a risk factor, triggering an alert.

Intervention: Psychological support was provided to Zhang, alongside financial counseling. Stress management techniques and healthier coping strategies were introduced.

Outcome: Zhang learned to manage his stress more effectively, reducing his reliance on shopping as an emotional crutch and improving his financial stability.

7. Conclusion

The study's exploration into the alienation of online consumption among higher vocational students in China has yielded invaluable insights, providing a nuanced understanding of this complex phenomenon. The development and application of the Early Warning Model (EWM) stands out as a significant contribution, offering a proactive approach to identifying and mitigating the risks associated with unhealthy consumption patterns.

7.1. Summary of Key Findings

The research unearthed a range of factors contributing to

consumption alienation, including social influence, emotional fulfillment, and easy access to credit. The case studies demonstrated the EWM's effectiveness in early detection and intervention, highlighting its potential as a valuable tool for educators, counselors, and parents alike.

7.2. Implications of the Study

The implications of this study are far-reaching, extending beyond the confines of vocational colleges. The insights gained can inform policy-making, educational programs, and counseling services, fostering a supportive environment that encourages responsible consumption and financial literacy.

7.3. Limitations and Areas for Future Research

While the study provides a comprehensive analysis, it is not without its limitations. The sample is confined to vocational colleges in Jiangxi Province, and future research could expand the scope to include diverse regions and demographics. Additionally, the long-term effectiveness of the EWM and its interventions warrants further investigation.

7.4. Concluding Remarks

The alienation of online consumption is a pressing issue, particularly among higher vocational students who are navigating the transitional phase between adolescence and adulthood. This study contributes to the ongoing discourse, providing a framework for understanding and addressing the issue.

The Early Warning Model emerges as a beacon of hope, illuminating the path towards informed decision-making, financial well-being, and a balanced relationship with consumption. By embracing the insights and tools presented in this research, stakeholders can play a pivotal role in shaping a future where digital consumption is characterized by awareness, control, and fulfillment.

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