The Impact of Online Shopping on Household Consumption Structure in China

LiXue Qu[1,a,*]

[1]*Macau university of science and technology, Avenida Wai Long, Taipa,Macau, China*
a. Qulixue65@gmail.com
*corresponding author

Abstract: Amidst a rapidly evolving technological landscape and improved economic conditions, online shopping has seamlessly woven itself into the fabric of our daily lives, subtly reshaping household spending patterns. This comprehensive study delves deep into the profound influence of online shopping on the structures of family consumption, drawing insights from theories encompassing online shopping, family consumption, and various consumption categories. The primary focal point of this research revolves around the transformative impact of online shopping on consumption behaviors within Chinese households. Leveraging data from the 2018 China Family Tracking Survey (CFPS) and carefully controlling for variables such as age, marital status, education level, and health status, which reflect both family and individual economic characteristics, the study unravels a compelling correlation between online shopping and the enrichment of household consumption structures. To address potential concerns regarding endogeneity, instrumental variables and propensity score matching techniques are adroitly applied, further fortifying the premise that online shopping plays a pivotal role in advancing household consumption. This robustness reinforces the initial regression findings, providing a nuanced understanding of the evolving dynamics of family consumption in the digital age.

Keywords: online shopping, family consumption structure, development consumption, enjoy consumption, subsistence consumption

1. Introduction

In the context of rapid technological advancement and improving economic standards, online shopping has become an integral part of people's lives, reshaping household consumption patterns. This study explores the impact of online shopping on family consumption structure by employing theories of online shopping, family consumption, survival consumption, development consumption, and enjoyment consumption.

Initially, the paper examines how online shopping influences the consumption structure of Chinese households. Utilizing data from the 2018 China Family Tracking Survey (CFPS), variables such as age, marital status, education level, and health status are controlled for, representing both family and individual economic characteristics.

The findings indicate a substantial correlation between online shopping and the enhancement of household consumption structure. Potential endogeneity issues were addressed through instrumental variables and propensity score matching, further reinforcing the notion that online shopping

significantly contributes to the advancement of household consumption. These results affirm the robustness of the baseline regression outcomes.

Furthermore, the study conducts a heterogeneity analysis by categorizing the sample into urban and rural subgroups.

2. Literature review

In recent decades, there have been a large number of studies on the status quo and changing trend of household consumption structure. This paper aims to summarize some important research in this field. The life cycle hypothesis was first proposed by Modigliani and Brumberg [1] the idea is that individuals plan their spending and saving behavior and adapt it to their longevity. Friedman [2] proposed the permanent income hypothesis, that is, consumption decisions are based on individual expectations.

Long-term average income rather than current income. Ando and Modigliani [3] further developed this theory and emphasized its impact and testing on a holistic level. Their research provides important insights into the composition of household consumption structures. Hall [4] examined the stochastic effects of the life cycle/permanent income hypothesis, providing both theoretical and empirical evidence. The study reveals the importance of considering income uncertainty and risk for understanding household consumption behavior. Deaton and Muellbauer [5] developed an econometric model, the Almost ideal Demand System (AIDS), for estimating consumer demand. Their research has an important impact on the analysis of the composition of household consumption structure and the identification of changing trends and patterns. Campbell and Mankiw [6] studied the relationship between permanent income, current income, and consumption, and Empirical evidence is provided to support this hypothesis. Carroll [7] proposed the buffer savings model.

The model is based on the life cycle/permanent income hypothesis. The model assumes that families will be maintained a savings buffer against income uncertainty. The research helps to understand the family how to respond to changes in income and consumption patterns. These important studies laid the foundation for the analysis of family elimination

The basis of current status and changing trend of fee structure. Further research is needed on emerging factors, such as technological advances the impact of demographic changes and the evolution of social norms on household consumption patterns.

When studying the current status and changing trends of consumption structure, scholars primarily analyze using price elasticity, expenditure elasticity, and income elasticity. Zhang Yingxi [8] suggests that urban residents in our country exhibit flexibility in consuming services related to transportation, communication, healthcare, and entertainment, while services related to household, education, and housing lack flexibility. Yuan Huilian [9] found that the insufficient consumer demand of urban residents in our country is particularly prominent, with a decrease in the proportion of basic necessities such as food and clothing. The effects of income and price factors on consumption structure upgrading change over time. Cui Jingwen [10] analyzed the impact of cognitive ability on residents' household consumption using 2018 China Family Panel Studies (CFPS) data, revealing that an improvement in individual cognitive ability significantly positively promotes total household consumption and non-durable consumption expenditures. Zeng Guojun [11] believe that as urbanization progresses, the differences in food consumption structure between urban and rural residents gradually decrease, the essentiality of food decreases, and the demand for meat, poultry, and vegetables rises. These significant studies lay the foundation for understanding the current status and changing trends of household consumption structure. Further research is needed on emerging factors such as technological progress, demographic changes, and the evolution of social norms' impact on household consumption patterns.

Hermeking [12] believes that regional culture influences internet consumption. Zhang Yongli and Xu Lamei [13], based on survey data from 1,735 households in 15 impoverished villages in Gansu Province, found that internet usage helps improve the consumption level and optimize the consumption structure of rural households. Zhao Baoguo and Gai Nian [14] utilized internet consumption finance-related data from 2007 to 2017 and discovered that the development of internet consumption finance has a greater impact on residents' development-oriented consumption expenditures than on basic survival consumption, contributing to the expansion of residents' development-oriented consumption expenditures. Yin Zhigao and Ren Taizeng [15] found that mobile internet can promote the improvement of rural residents' consumption levels and the upgrading of consumption structures. Through reviewing existing literature, it's observed that research on online shopping and residents' consumption mainly focuses on the impact of online shopping on the total volume of residents' consumption, with less attention given to the impact of online shopping on the upgrading of residents' consumption. Online shopping breaks the constraints of time and space, providing an excellent user experience, leading to a massive user base. Given China's current economic development, untapped consumption potential, and the need for consumption structure improvement, analyzing the impact of online shopping on the upgrading of residents' consumption can significantly benefit the promotion of consumption upgrading and the stimulation of consumption potential in our country. Li Xuyang [16] and others believe that using the internet helps increase development and enjoyment-oriented consumption within households, promoting the upgrading of residents' household consumption. Yang Jianzheng [17] and others empirically analyzed the promoting role of e-commerce in economic growth.

This article will use micro-level data to study the impact of household consumption upgrading and analyze the differentiated effects of online shopping on urban and rural residents. The aim is to supplement existing literature and provide insights into how to stimulate consumption in the new normal. Current domestic and international scholarly research on household consumption structure is predominantly qualitative, with limited quantitative analysis. This paper proposes to use quantitative research methods to academically investigate the upgrading of household consumption in China from the perspective of online shopping. On one hand, it fills a gap in quantitative research on household consumption structure in academia. On the other hand, this article attempts to provide a quantitative analysis perspective, offering a research direction for future in-depth studies on household consumption structure and serving as an academic reference for scholars.

3.   Research methods

The data utilized in this paper has been sourced from the 2018 Court Tracking Investigation project by the China Social Science Survey Center at Peking University, known as CFPS (China Family Panel Studies). The CFPS questionnaire offers comprehensive information on personal and familial aspects such as family economics, employment, income, familial relationships, cognitive abilities, attitudes, and behaviors. Of particular significance to this study is the core variable of interest, which pertains to whether family members have engaged in online shopping, as well as the relevant data concerning subsistence, development, and enjoyment consumption within the household consumption framework.

For the purpose of quantitative analysis, this paper establishes the following model to explore how online shopping influences the household consumption structure:

$$consum_i = \alpha_0 + \beta_1 onlsho_i + \sum \beta_i\ X_i + \mu_i \qquad (1)$$

3.1. Explained variables

In this paper, the dependent variable under examination is the household consumption structure, quantified by the ratio of development and enjoyment expenses to the overall household consumption spending. The household economic questionnaire within the CFPS database employs the same classification system as the China Statistical Yearbook, which divides household consumption spending into eight distinct categories: food, clothing, housing, household equipment and supplies, transportation and communication, education, culture and entertainment, medical care, and other goods and services. Consequently, computing the dependent variables becomes a straightforward process. Subsistence consumption encompasses food, clothing, and housing expenses, while development consumption is the sum of education, transportation, communication, and healthcare spending. Enjoyment consumption comprises the combined costs of household equipment and supplies, entertainment, cultural services, and other expenditure categories.

3.2. Main explanatory variables

Whether family members have done online shopping, if so, assign it a value of 1; If not, the value is set to 0.

3.3. Control variables

At the level of the head of household, the main control variables are the age of the head of household, marital status (unmarried status =0, married status =1), health status (very healthy =1, very healthy =2, relatively healthy =3, average =4, unhealthy =5), and confidence in the future (the higher the value of 1-5, the higher the confidence in the future). The household level controlled for variables such as household per capita income and whether there were patients in the household (no patients =0, one patient =1, two patients =2, three patients =3).

4. Results and Discussion

Table 1: Baseline regression result.

VARIABLES	consum(1)	consum(2)	consum(3)	consum(4)
onlsho	0.0308***	0.0370***	0.0465***	0.0519***
	(-5.21)	(-5.01)	(-6.23)	(-6.94)
marsta		0.0767***	0.0755***	0.0740***
		(-10.1)	(-9.98)	(-9.77)
health		0.0232***	0.0118***	0.0131***
		(-10.99)	(-4.04)	(-4.5)
edu		-0.002	0.0011	0.0019
		(-1.27)	(-0.71)	(-1.16)
confid		0.0035	0.0048**	0.0042*
		(-1.56)	(-2.12)	(-1.9)
patient			0.0461***	0.0445***

Table 1: (continued).

			(-5.34)	(-5.15)
aveinc			-0.0130***	-0.0085***
			(-6.88)	(-4.28)
age		-0.0011***	-0.0012***	-0.0010***
		(-6.20)	(-6.59)	(-5.64)
Constant	0.3688***	0.2768***	0.4119***	0.2970***
	(-131.64)	(-16.8)	(-17.67)	(-8.79)
Province FE	NO	NO	NO	YES
Observations	7,136	7,136	7,136	7,136
R-squared	0.004	0.035	0.046	0.062
r2_a	0.00366	0.034	0.0447	0.057
F	27.19	42.89	42.75	12.34

Note:*** $p<0.01$, ** $p<0.05$, * $p<0.1$

This model includes just one independent variable: whether online shopping (onlsho). In this model, we are examining whether online shopping is positively associated with the household consumption structure. The low R-squared value suggests a weak model fit, accounting for only 0.4% of the variance.

Model consum (2) : Expanding on Model consum (1), this model incorporates two additional control variables: marital status (marsta) and the health status of the household head (health). In this extended model, we investigate whether online shopping, marital status, and the health status of the household head exhibit significant positive correlations with the household consumption structure. While the model fit has improved slightly, it still remains relatively low, explaining only 3.5% of the variation.

Model consum (3) : Building upon Model consum (2), this model introduces four additional control variables: education level (edu), confidence in the future (confid), the presence of patients in the family (patient), and the natural logarithm of per capita income (aveinc). In this extended model, we explore the significant relationships between online shopping, marital status, the health status of the household head, family illness, and the natural logarithm of per capita income with the household consumption structure. While the model fit has improved further, it still remains relatively low, explaining only 4.6% of the variation.

Model consum (4) : Province FE has been included in Model consum (3). Within this model, the relationship between each control variable and the household consumption structure exhibits a fundamental consistency, and the degree of model fit is enhanced further, elucidating 6.2% of the variance.

Whether online shopping (onlsho) or not, in all four models, we consistently observe a significant positive correlation between online shopping and the household consumption structure. Notably, in the final model (consum (4)), the coefficient is 0.0519 with a significance level of 0.01. This suggests that households opting for online shopping tend to exhibit relatively higher consumption structures. This inclination could be attributed to the likelihood that online shoppers are more inclined to embrace novel consumption approaches and explore a wider range of products.

Marital Status (marsta):

Our research has identified a noteworthy positive correlation between marital status and family consumption structure. It appears that the consumption structure in married households tends to be relatively higher. This phenomenon could be attributed to the propensity of married households to invest in superior products and services for their family members, thereby enhancing the overall household consumption structure.

Health status of the head of household:

The empirical findings reveal a noteworthy positive correlation between the health status of the household head and the household consumption structure. This linkage may stem from the observation that households with better health are more inclined to prioritize the acquisition of products and services that contribute to physical and mental well-being during their consumption, consequently enhancing the overall household consumption structure.

Educational attainment (edu) :Our analysis revealed an absence of a significant relationship between educational attainment and household consumption structure. This implies that within our sample, educational attainment exerts a relatively limited influence on household consumption structure. This phenomenon might be attributed to other variables, such as income, age, etc., playing more substantial roles in shaping consumption structures.

Confidence in the Future (confid) : Confidence in the future exhibits a positive correlation with household consumption structure, albeit with a relatively low level of significance. This observation suggests that households with greater confidence are somewhat more inclined to prioritize high-quality product and service purchases during consumption, contributing to an enhancement in the household consumption structure, albeit with a relatively modest impact.

The presence of patients in the household: Our empirical findings indicate a significant positive correlation between the presence of patients in the household and the household consumption structure. This association might be explained by the increased financial resources directed toward medical expenses and the care of the ill within the family, ultimately leading to a relatively higher overall household consumption structure. To ensure the proper care of unwell family members, additional investments in medicines, medical equipment, and treatment services may be required, thereby influencing the overall consumption structure.

Ln per capita income (aveinc): Our empirical results reveal a significant negative correlation between Ln per capita income and the household consumption structure. This might be attributed to higher-income households allocating a greater portion of their earnings to savings and investments after fulfilling their basic needs, rather than immediate consumption. Consequently, this leads to a relatively lower household consumption structure. Moreover, households with higher incomes often exhibit a heightened focus on cost-effective consumption, evading excessive spending, thus maintaining a lower consumption structure.

Age: Our study identifies a significant negative correlation between age and the household consumption structure. This is likely because, with advancing age, family members tend to undergo changes in their consumption preferences and habits, placing greater emphasis on practicality and cost-efficiency, which results in a reduced household consumption structure.

In summary, our empirical analysis indicates that the household consumption structure is influenced by multiple potential factors. Although the model's explanatory power is relatively modest, we can still draw some preliminary conclusions regarding the relationship between the household consumption structure and the control variables. In future research, delving into other potential variables that may impact household consumption structure can enhance the model's explanatory capacity and offer more comprehensive insights into household consumption behavior and policy formulation.

Table 2: Instrumental variable regression results

	The first stage			
VARIABLES	consum(1)	consum(2)	consum(3)	consum(4)
The importance of the Internet as information	0.1645***	0.1086***	0.1037***	0.1023***
	-70.85	-38.4	-36.32	-35.91
Province FE	NO	NO	NO	YES
	The second stage			
VARIABLES	consum	consum	consum	consum
onlsho	0.0396***	0.0583***	0.0862***	0.1000***
	(-4.31)	(-3.27)	(-4.56)	(-5.24)
marsta		0.0785***	0.0784***	0.0772***
		(-10.17)	(-10.21)	(-10.07)
health		0.0233***	0.0118***	0.0133***
		(-11.02)	(-4.05)	(-4.55)
edu		-0.0033*	-0.0009	-0.0006
		(-1.78)	(-0.50)	(-0.30)
confid		0.0034	0.0046**	0.0041*
		(-1.49)	(-2.07)	(-1.82)
patient			0.0461***	0.0443***
			(-5.33)	(-5.13)
aveinc			-0.0147***	-0.0104***
			(-7.23)	(-4.94)
age		-0.0009***	-0.0008***	-0.0005**
		(-3.55)	(-3.07)	(-2.05)
Constant	0.3668***	0.2626***	0.4015***	0.2755***
	-113.97	-13.33	-16.89	-7.94
Province FE	NO	NO	NO	YES
Observations	7,136	7,136	7,136	7,136
R-squared	0.003	0.034	0.042	0.057
r2_a	0.00335	0.0329	0.0409	0.0515
F	18.55	40.45	40.35	11.73
LM statistic	2947.423	1223.152	1114.393	1097.433
	0	0	0	0
F statistic	5020.06	1474.73	1318.963	1289.79

Note:*** p<0.01, ** p<0.05, * p<0.1

Stage 1: In the first stage regression, we observed a significant positive correlation between the importance of the Internet as an information source and the likelihood of engaging in online shopping. This association held true across all four models, with the most pronounced result found in the model

incorporating provincial fixed effects (whether online shopping or not (4)), where the coefficient was 0.1023, with a significance level of 0.01. This implies that households valuing the Internet as a vital information channel are more inclined to opt for online shopping.

Stage 2: In the second stage of regression, we identified a positive correlation between online shopping and household consumption structure, which was statistically significant in all four models. Specifically, in the model encompassing provincial fixed effects (consum (4)), the coefficient was 0.1000, with a significance level of 0.01. This indicates that households that choose online shopping tend to exhibit a relatively higher consumption structure, aligning with the findings from our earlier multiple linear regression analysis.

In summary, our instrumental variable regression analysis reveals that household consumption structure is influenced by several factors. Notably, whether online shopping, marital status, the health status of household members, the presence of patients, and other factors have a significant positive impact on family consumption structure. In contrast, age and Ln per capita income exert a significant negative influence. Additionally, the influence of education level and confidence in the future on household consumption structure appears to be relatively weaker. These findings hold significant implications for comprehending household consumption behavior and the factors that shape it.

Table 3: Propensity score matches results.

Matching method	Treatment group	Control group	ATT	Standard error	T value
4 nearest neighbor matching	0.398	0.354	0.043	0.011	3.92
Radius matching	0.399	0.354	0.044	0.01	4.15
Nuclear matching	0.399	0.355	0.044	0.01	4.09

All three matching methods revealed notable distinctions between the treatment group and the control group, signifying a significant treatment impact. While there are minor variations in the values of the average treatment effect (ATT) across the three methods, they consistently fall within the range of 0.043 to 0.044, underscoring the robustness of the treatment effect estimates. Furthermore, in all three methods, the T-value surpasses 1.96, affirming the significance of the treatment effect.

Table 4: Heterogeneous analysis results.

VARIABLES	consum(1)		consum(2)		consum(3)		consum(4)	
	towns	village	towns	village	towns	village	towns	village
onlsho	0.0602***	0.0108	0.0553***	0.0193	0.0593***	0.0260*	0.0585***	0.0378***
	-8.71	-0.89	-6.19	-1.4	-6.56	-1.89	-6.49	-2.72
marsta			0.0788***	0.0808***	0.0772***	0.0811***	0.0764***	0.0800***
			-7.94	-6.8	-7.75	-6.85	-7.66	-6.72

Table 4: (continued).

health			0.0161***	0.0281***	0.0074*	0.0183***	0.0082**	0.0197***
			-5.42	-9.36	-1.87	-4.16	-2.1	-4.48
edu			0.0056***	-0.003	0.0074***	-0.0018	0.0080***	-0.0014
			-2.65	(-1.25)	-3.36	(-0.76)	-3.65	(-0.58)
confid			0.0011	0.0056*	0.0023	0.0062*	0.0017	0.0056*
			-0.37	-1.7	-0.74	-1.88	-0.56	-1.69
patient					0.0382***	0.0382***	0.0393***	0.0311*
					-3.23	-2.98	-3.33	-2.41
aveinc					-0.0064**	-0.0131***	-0.0021	-0.0104***
					(-2.41)	(-4.47)	(-0.75)	(-3.45)
age			-0.0009***	-0.0011***	-0.0009***	-0.0014***	-0.0009***	-0.0010***
			(-3.84)	(-4.04)	(-3.65)	(-4.97)	(-3.72)	(-3.42)
Constant	0.3388***	0.3957***	0.2460***	0.2754***	0.3165***	0.4200***	0.2152***	0.3117***
	-86.83	-98.42	-10.96	-11.13	-9.8	-11.32	-5.21	-3.66
Province FE	NO	NO	NO	NO	NO	NO	YES	YES
Observations	3,745	3,293	3,745	3,293	3,745	3,293	3,745	3,293
R-squared	0.02	0	0.046	0.041	0.05	0.049	0.076	0.068
r2_a	0.0196	-6.30E-05	0.0442	0.0388	0.0481	0.0469	0.0666	0.0587
F	75.82	0.792	29.86	23.17	24.63	21.27	8.226	7.043

Note:*** $p<0.01$, ** $p<0.05$, * $p<0.1$

It's evident that the sample in this study is segregated into urban and rural categories, with separate regression analyses conducted for each subset. This allows us to scrutinize whether there is a notable distinction in the influence of online shopping on consumer behavior between urban and rural residents.

In consum (1), the coefficient for online shopping among urban residents stands at 0.0602 (significant at 1%), while rural residents exhibit a coefficient of 0.0108 (insignificant). This implies

a substantial positive correlation between online shopping and consumption in urban areas, whereas this correlation is not significant in rural regions.

Moving on to consum (2), where we introduce the marital status control variable, the online shopping coefficient for urban residents is 0.0553 (significant at 1%), and for rural residents, it's 0.0193 (insignificant). In this model, a significant positive link between online shopping and urban consumption persists, while it remains insignificant in rural areas.

In consum (3), we further incorporate control variables like health, education, and confidence in the future. The online shopping coefficient for urban residents is 0.0593 (significant at 1%), and for rural residents, it's 0.0260 (significant at 10%). In this model, the significant positive correlation between online shopping and consumption endures among urban residents, while it becomes significant, albeit at a lower significance level, in rural areas.

Lastly, in consum (4), we introduce the provincial fixed effect. Here, the online shopping coefficient for urban residents is 0.0585 (significant at 1%), and for rural residents, it's 0.0378 (significant at 1%). In this model, the significant positive correlation between online shopping and consumption prevails among urban residents, while in rural areas, the significance of this relationship strengthens.

From the four models, it's evident that a significant positive correlation between online shopping and urban consumption consistently exists. In rural areas, with the incorporation of additional control variables and provincial fixed effects, the relationship between online shopping and consumption gradually becomes significant. This suggests that the impact of online shopping on consumer behavior may vary across different regional contexts.

5.   Conclusion

Drawing on data from the 2018 China Household Tracking Survey (CFPS), this study empirically examines the influence of online shopping on household consumption structure. The research findings indicate the following:

Online shopping exerts a discernible impact on household consumption structure, fostering an increase in the proportion of development and enjoyment expenditures within the overall spending.

The influence of online shopping on the household consumption structure differs between urban and rural consumer groups. Enjoyment expenditures reflect residents' consumption ideas and preferences, which are integral to future development. Conversely, development expenditures are intricately linked to income levels and have a noteworthy effect on residents' consumption structures.

Consequently, it is imperative for governmental bodies to accelerate the establishment of a secure and dependable information infrastructure to ensure the stable and orderly growth of the online shopping market. Simultaneously, online shopping platforms should be encouraged to innovate their product and service models and facilitate the deep integration of the Internet with the real economy. Furthermore, efforts should be directed towards enhancing awareness of online shopping security and fortifying the development of laws and regulations governing the online shopping market, ultimately standardizing its operations.

In this era of online shopping, consumption is expanding in terms of scope and dimension, and consumer culture is becoming more diverse and inclusive. Therefore, aligning with the evolving landscape of our nation's social development and drawing from our traditional culture, it is imperative to construct a culture that guides individuals in the pursuit of a better life, embodying principles of "fairness" and "subjectivity" in consumption. This approach aims to grant people both material contentment and spiritual fulfillment through their consumption experiences.

Promoting and popularizing Internet usage, along with enhancing household online shopping and payment practices, can assist China in surmounting consumption barriers and mitigating the repercussions of economic uncertainties on household consumption in uncertain economic conditions.

References

[1] Modigliani, F., & Brumberg, R. (1954). Utility analysis and the consumption function: An interpretation of cross-section data. In K. K. Kurihara (Ed.), Post-Keynesian Economics (pp. 388-436). Rutgers University Press.

[2] Friedman, M. (1957). A theory of the consumption function. Princeton University Press.

[3] Ando, A., & Modigliani, F. (1963). The "life cycle" hypothesis of saving: Aggregate implications and tests. American Economic Review, 53(1), 55-84.

[4] Hall, R. E. (1978). Stochastic implications of the life cycle-permanent income hypothesis: Theory and evidence. Journal of Political Economy, 86(6), 971-987.

[5] Deaton, A., & Muellbauer, J. (1980). An almost ideal demand system. American Economic Review, 70(3), 312-326.

[6] Campbell, J. Y., & Mankiw, N. G. (1990). Permanent income, current income, and consumption. Journal of Business & Economic Statistics, 8(3), 265-279.

[7] Carroll, C. D. (1997). Buffer-stock saving and the life cycle/permanent income hypothesis. Quarterly Journal of Economics, 112(1), 1-55.

[8] Zhang Yingxi.(2014). A study on the elasticity of service consumption demand of urban residents in China -- Based on QUAIDS model.] Finance and Trade Economics (05),127-135.

[9] Yuan Huilian, Xia Qingjie & Wang Zhiwei.(2016). Consumption demand analysis of urban residents in China. Economic Science (04),54-64.

[10] Cui Jingwen, Xu Shulin & Li Yunfeng.(2019). Financial knowledge, Limited concern and financial behavior. Research in Financial Economics (06),105-119.

[11] Zeng Guojun, Liang Yuhe & Xu Yuchen.(2022). Changes in food consumption structure of urban and rural residents in China. Quantitative Economics Research (01),54-72.

[12] Hermeking M.Culture and internet consumption:Contributions from cross-cultural marketing and advertising research[J].Journal of Computer-Mediated Communication,2005,11(1):192-216

[13] Zhang Yongli & Xu Lamei.(2019). Changes in the nature of poverty in China after 40 years of reform and opening up and Prospects of anti-poverty policies after 2020. Western China (02),71-83.

[14] Zhao Baoguo & Gai Nian.(2020). The impact of Internet consumer Finance on domestic consumption structure: An empirical study based on VAR model. Journal of Central University of Finance and Economics (03),33-43.

[15] Yin Zhigao & Ren Taizeng.(2022). Mobile Internet and Rural residents' consumption: Theoretical logic, practical Basis and micro evidence. China Circulation Economy (11),27-37.

[16] Li Xuyang, Li Tongping & Zou Weijin.(2019). Does the Internet promote household consumption upgrading? -- Research based on China's micro-survey data. Journal of China University of Geosciences (Social Sciences Edition)(04),145-160.

[17] Yang Jianzheng, Zhou Tao & Li Qingzi.(2011). An empirical study on the effect of e-commerce on economic growth. World Economic Research (10),40-43+88.