

Untangling the Moderating Effects of Financial Literacy on OCC Adoption Among Chinese Emerging Adults

Xinxin Wei¹, Mohamad Fazli Sabri^{1*}, Norzalina Zainudin¹, Ayuni Nabilah Alias¹, Nik Ahmad Sufian Burhan¹, and Megawati Simanjuntak²

¹Faculty of Human Ecology, Universiti Putra Malaysia, 43400 Serdang, Selangor, Malaysia

²Department of Family and Consumer Sciences, Faculty of Human Ecology, IPB University, Bogor, West Java, 16680 Indonesia

ABSTRACT

The financial well-being of Emerging Adults (EAs) has long attracted scholarly attention, and the rapid expansion of OCC exposes them to structural risks that may ultimately undermine both their individual financial well-being and the stability of society. This study integrated financial literacy into the Theory of Planned Behaviour (TPB) framework to examine the mechanisms underlying Online Consumer Credit (OCC) adoption among Chinese EAs. Questionnaires were collected online through the Wenjuanxing platform, and 609 were valid. The findings revealed that attitudes, subjective norms, and perceived behavioural control positively influence EAs' intention to use OCC, with intention serving as a key mediator between these antecedents and subsequent behaviours. Financial literacy moderated the intention-behaviour relationship, with higher levels of financial literacy weakening the link between people's intention to adopt OCC and their actual usage. Moreover, subjective financial literacy exerted a stronger moderating effect than objective financial literacy. These results provide important implications for financial education initiatives. While objective

knowledge is indispensable, confidence in one's ability to make sound financial decisions may play a more decisive role in shaping life-long financial well-being. Future studies are recommended to explore additional moderators that may guide prudent OCC consumption and to localise research instruments for use in different cultural contexts.

ARTICLE INFO

Article history:

Received: 01 July 2025

Accepted: 11 February 2026

Published: 31 March 2026

DOI: <https://doi.org/10.47836/pjssh.34.S1.04>

E-mail addresses:

sashawei126@hotmail.com (Xinxin WEI)

fazli@upm.edu.my (Mohamad Fazli Sabri)

norzalina@upm.edu.my (Norzalina Zainudin)

ayunabilah@upm.edu.my (Ayuni Nabilah Alias)

nikahmadsufian@upm.edu.my (Nik Ahmad Sufian Burhan)

mega_juntak@apps.ipb.ac.id (Megawati Simanjuntak)

* Corresponding author

Keywords: Emerging adults, financial literacy, fintech, objective financial literacy, online consumer credit, subjective financial literacy, TPB

INTRODUCTION

The financial well-being of Emerging Adults (EAs) is a central concern in economics and family studies since decisions in this transitional stage carry lasting effects throughout their lives (Hochberg & Konner, 2020). With the rapid expansion of Online Consumer Credit (OCC), EAs are exposed to structural risks due to their financial dependence and low level of financial literacy, which may undermine their financial well-being, household resilience and, ultimately, social stability (Dwyer & DeMarco, 2024; Lusardi et al., 2010; Sabri & Zakaria, 2015).

In China, the 2010s saw a swift expansion of the internet economy and the rise of non-bank OCC products that in some segments supplanted traditional bank lending (Barnett et al., 2022). OCC refers to unsecured credit evaluated by internet-based financial institutions using big-data scoring and disbursed via FinTech platforms (Dong et al., 2023). The ease of access, wide usage scenarios, frictionless payment and intensive promotions have normalised “buy-now-pay-later” practices, shaping attitudes and everyday borrowing behaviours in the FinTech era (Jiang & Zhou, 2020).

EA refers to young people between the ages of 18 and 29 (Hochberg & Konner, 2020). Despite attaining the legal age of adulthood at 18, they have yet to achieve a sufficient level of maturity regarding economic, psychological, and even physiological development (Arnett, 2006; Wood et al., 2018). OCC products, represented by Ant Huabei and Jingdong

Baijiao, have significantly infiltrated the lives of Chinese EA consumers. A Nielsen report indicates that the penetration rate of OCC among youth is as high as 60.9 percent (Xie et al., 2021). The OCC provides chances for EAs to amass seed capital; yet some EAs fail to manage their borrowing practices well, resulting in anxiety, financial difficulties, estrangement from their families, and even suicidal ideation (Xu et al., 2023).

A significant disparity exists between the swift advancement of fintech and the financial literacy of the populace in China. Despite being the country with the greatest fintech penetration rate globally at 87 percent, the overall financial literacy level of people is concerning (S. Liu et al., 2023; Yoshino et al., 2020). A deficiency of financial literacy frequently results in an inability to make advantageous financial decisions, preventing customers from fully enjoying the benefits of OCC products (Khan et al., 2023). Financial literacy significantly impacts not only consumers’ capacity to make sound short-term decisions but also their ability to make long-term choices that influence their overall well-being (L. Liu & H. Zhang, 2021). The emerging generation, EA, is poised to take the responsibility of contributing to the economic development, and their financial well-being is essential for the stable development of the whole society (Ranta et al., 2020). Therefore, it is imperative to examine the influence of financial literacy on EA’s use of OCC to provide more insight to individuals, families, government, and institutions for better understanding and regulating EA’s behaviour.

Based on previous literature, the prevailing interest in OCC customer behaviour in EA predominantly examines it from a viewpoint of marketing, consumer behaviour, and technology acceptability (Barnett et al., 2022), only a limited number of studies have explored the rationale behind OCC adoption activity from the users' perspective, and even fewer have investigated the moderating effect of financial literacy in this setting. In these limited investigations of the moderating influence of financial literacy, most authors have conflated subjective and objective financial literacy as a singular entity, thus overlooking the distinctions between them (Morgan & Trinh, 2020). The necessity of testing subjective and objective financial literacy separately arises from their frequent mismatch, often illustrated by the Dunning–Kruger effect, in which individuals with high subjective literacy overestimate their actual ability (Allgood & Walstad, 2016 ; Xin et al., 2024). Conflating the two may therefore misguide policymakers. Identifying these differences is essential for targeted policy design: while objective literacy should be strengthened through systematic and long-term education, subjective literacy requires greater emphasis on psychological guidance and can be enhanced more immediately (Gerrans et al., 2025). Consequently, this study will address the deficiency in prior empirical evidence regarding EA's OCC usage behaviour and will investigate the differential impact of subjective and objective financial literacy on the moderating relationship between

EA's OCC intention and behaviour, thereby providing targeted recommendations for government and institutions to improve individuals' financial behaviour.

LITERATURE REVIEW

Online Consumer Credit

Online Consumer Credit (OCC) is a product that utilises a big data system backed by internet companies, leveraging users' prior online transaction histories to assess creditworthiness and ultimately provide a credit quota via the Internet. It emphasises a 310 experience: three minutes to apply, one second to receive funds, and no human intervention (Kshetri, 2020). China's Ant Huabei can be considered the originator of OCC products (Barnett et al., 2022). Relying on the influence of the widely spread Taobao website and the powerful Alipay e-wallet system, Ant Huabei quickly gained millions of users at the time of its introduction (Hau et al., 2019; Shi, 2020). After Ant Chanting broke through, China's overall OCC market has shown vigorous vitality. Alongside Ant Huabei, a range of OCC products backed by their robust Internet parent company, including Jingdong Baitiao, Baidu Duxiaoman Finance, Tiktok Monthly Payment, and the Meituan Credit Card, have swiftly permeated Chinese people's daily life, integrating themselves into the spheres of food, clothing, housing, transportation, and entertainment (W. Liu et al., 2021).

For Chinese EA, utilising OCC may be regarded as an act of last resort when facing financial distress. The traditional

financial system is hierarchical, highlighted by significant entry barriers, and all services depend on the user's assets, hence privileging large firms and high net worth groups with considerable financial resources over economically disadvantaged individuals in credit market (McDonald & Dan, 2021). Moreover, in 2009, banks suspended the provision of credit card products to Chinese university students, consequently excluding the EA group from China's credit market due to their absence of stable job, fixed assets, and a recognised social status (Li et al., 2019). A prolonged absence of lending options for economically marginalised people remained, leading to the creation of OCC as a viable solution for the credit requirements of EA's in China (C. Zhang et al., 2021). The OCC's low threshold, rapid speed, and diverse applications can serve as an effective alternative to conventional credit cards, enabling persons marginalised by the existing financial system to access equivalent credit chances as bank credit users. Due to this, OCC is increasingly attracting EA users in China (J. Zhang et al., 2022).

Emerging Adults

Despite that there is no common standard for the age range of Emerging Adults (EA), scholars are all in agreement that, even though EAs have achieved the legal adult status at the age of eighteen, they are not genuinely adults from a societal, economic, and physiological perspective (Arnett, 2006). In terms of biology, scholars argue that the human brain's maturation does not reach its full potential until around the age

of 30 (Wood et al., 2018). This means that even at the age of 18, individuals need more than a decade to develop their cognitive frameworks and societal comprehension, during which time they will refine and improve their behavioural patterns to better adapt to their surroundings (Rudling et al., 2023). Additionally, academics argue that the attainment of sexual maturity or reaching a specific age does not necessarily indicate adulthood (Mazelis & Kuperberg, 2022). "Adulthood" is primarily a social concept, defined by the establishment of a new identity and the dissolution of familial ties. This is exemplified by transitions such as the transition from singlehood to marriage, from childhood to parenthood, from economic dependence to independence, and from reliance on parental guidance to independent decision-making (Arnett, 2006).

Secondly, certain scholars argue that financial independence is a critical determinant of human development. However, for numerous EAs, the process of achieving financial autonomy beyond the age of eighteen and establishing what is considered "actual adulthood" is extremely challenging (Mazelis & Kuperberg, 2022). On the one hand, the spread of higher education has resulted in a delay in the entrance of many EAs into society, and their financial independence is thus delayed (Arnett, 2006). Furthermore, because of their lack of work experience and life skills, EA encounter more work-related obstacles than their elders, which complicates their pursuit of financial independence (Wood et al., 2018.). For example, a Danish social survey revealed that the unemployment rate

and risk of labour market marginalisation are highest among young individuals aged 25-29 in Denmark (Jensen et al., 2020).

As individuals approach adulthood, they often encounter intricate financial challenges that may have a lifelong impact. During difficult life transitions, many EAs choose to use OCC products to alleviate hardship and better invest in themselves (Dwyer & DeMarco, 2024). However, some of them get themselves into a lot of trouble due to high-risk OCC behaviours, which puts them in greater financial crisis and further hinders their progress towards true adulthood (Ranta et al., 2020). The economic behaviours of EA impact not just their current financial status but also dictate their future economic prosperity. Most of the pivotal occasions in an individual's life transpire during people's emerging adulthood (Wood et al., 2018). In the current OCC era, to mitigate EAs' financial uncertainty during this transitional period, it is essential to analyse the OCC adoption patterns of EAs to offer insights that may enhance their behaviour.

The Theory of Planned Behaviour

Ajzen developed the Theory of Planned Behaviour (TPB) in 1985. This theory posits that attitude, subjective norms, and perceived behavioural control collectively forecast individuals' intention to engage in a behaviour, with intention regarded as a direct precursor to actual behaviour (Ajzen & Madden, 1986). TPB has remained an indispensable concept in the social sciences since its establishment and has been extensively utilised in Fintech consumption

research (Cao et al., 2023; Raj et al., 2023; D. Zhang et al., 2023). Despite its utilisation for decades, TPB has faced a lot of criticism regarding its validity, with some scholars arguing that it functions more as an inescapable paradigm within the social sciences than as a practical and effective instrument that researchers have judiciously aligned with real-life situations (Sniehotta et al., 2014). Thus, this research augmented the TPB model to include financial literacy as a moderating variable, fitting the context that most Chinese EAs are with limited financial literacy (L. Liu & H. Zhang, 2021; Peng et al., 2022).

Attitude

Attitudes (AT) are the overall evaluations of performing the behaviour by the individual (Rhodes & Courneya, 2003). It refers to individuals' affective (e.g. enjoyable/unenjoyable) and instrumental (e.g., beneficial/harmful) evaluations toward a behaviour (Sparks et al., 1997). Fishbein and Ajzen (1972) assert that attitudes are connected to an individual's overall intention or action regarding an object. Empirical investigations have demonstrated that attitudes positively influence users' intention to engage with OCC. For example, in a study of the mechanisms of OCC use in India, researchers found that attitude predicted more than half of consumers' intention to use OCC (Kumar & Nayak, 2024). Attitude accounted for nearly half of the variance in intention to use OCC among Chinese university students, according to a study conducted by D. Zhang et al. (2023).

Therefore, this study hypothesises that,

H1: Attitude towards OCC adoption will positively influence EA's Intention to use OCC.

Subjective Norm

Subjective Norms (SN) refers to personal assessment of the social pressures regarding conducting a particular behaviour (Rhodes & Courneya, 2003). The actor's intention to engage in a behaviour may be encouraged if they believe that the outer environment supports their activity (Ajzen, 1985). The ability of subjective norms to predict intentions was also verified in OCC context. Research conducted on Chinese OCC consumers revealed that SN substantially predicted the intention of nearly half of customers to utilise OCC (D. Zhang et al., 2023). In a cross-cultural context, the intention to utilise OCC is also significantly influenced by subjective norms. In an Indian investigation of the adoption behaviour of OCC among undergraduate and postgraduate students, demonstrated that 37.6% of the intention to use OCC could be predicted using subjective norms (Raj et al., 2023).

H2: SN for OCC adoption will positively influence EA's Intention to use OCC

Perceived Behavioural Control

According to Ajzen and Madden (1986), perceived behavioural control (PBC) is the perceived ease or difficulty of performing a behaviour by individuals. It has been shown to be influenced by past experiences, as well as anticipated impediments and

obstacles. Additionally, PBC is frequently employed to speculate on an individual's actual capacity to act. Individuals evaluate their ability to complete an event based on their psychological perception of their personal capabilities and resources, which is frequently indicative of their actual control. When perceived control is stronger, the individual's intention to execute the behaviour in question is also increased (Bosnjak et al., 2020). In OCC context, a study conducted in northern China revealed that the PBC of OCC use used by consumers predicted over one-third of their OCC use intention (D. Zhang et al., 2023). Therefore, this study hypothesises that

H3: PBC for OCC adoption will positively influence EA's Intention to use OCC.

Intention

Intention is intrinsically linked to behaviour; it serves as the precursor to all actions (Ajzen, 1985). A person's intention to act resembles a form of determination; that determination compels the individual to undertake the anticipated action when the appropriate circumstances arise (Gollwitzer, 1993). Consequently, intention has been identified as a crucial determinant of conduct in prior research. A study investigating an online health community application revealed that the intention to use explained 89.5% of usage activity (Cao et al., 2023). The robust association between PBC and intention is also evident in OCC adoption, as Irimia-Diéguez et al. (2023) determined that the intention to utilise an OCC

predicted 78.2% of usage behaviour. Consequently, we postulated that

H4a: Intention to use OCC influences EA's final OCC adoption.

Scholars suggest that without the mediating role of intentions, all ideas (e.g. attitudes, subjective norms) are only floating in the air, and it is only when they are blended to form a specific intention that those nebulous ideas are given meaning and ultimately have a substantial impact on human behaviour (Armitage & Christian, 2003). Thus, intentions are often seen as mediators between those abstract emotions and figurative actions. Consequently, intentions are frequently regarded as mediators between abstract emotions and concrete actions. This relationship is frequently verified in the previous empirical research. For instance, in the study by Ma and Yao (2023), researchers discovered that PBC contributed to 11.3% of usage behaviours, while PBC did not exert a significant direct effect on behaviour. In another investigation of podcast usage in Africa, researchers discovered that intention fully mediated the relationship between people's attitude, subjective norm and perceived behavioural control towards their podcast use and their final behaviour (Ifedayo et al., 2021). Thus, this study hypothesises that:

H4b: EA's Intention mediates the relationship between EA's Attitude and their OCC adoption

H4c: EA's Intention mediates the relationship between EA's Subjective Norm and their OCC adoption

H4d: EA's Intention mediates the relationship between EA's Perceived Behaviour Control and their OCC adoption

Financial Literacy

The term literacy primarily denotes theoretical comprehension; however, financial literacy encompasses not only the acquisition of financial knowledge but, more crucially, the capacity to make advantageous financial decisions (Huston, 2012). Consequently, in order to effectively navigate the financial marketplace and prevent costly financial errors, it is necessary to possess financial literacy (Amagir et al., 2020). Financial literacy consistently functions as a critical moderating factor in various kinds of relationships within the financial practice domain. Yang et al. (2018) conducted a study that investigated the financial decision-making authority of leaders and found that financial literacy significantly impacted the relationship between risk management practices and competitive advantage. Specifically, managers with higher financial literacy achieved a more significant competitive advantage in risk management than their less financially literate counterparts. Additionally, it was discovered that the relationship between the growth of SMEs and access to finance is moderated by financial literacy. The researchers discovered that during periods of digital transition, individuals who possess a high level of financial literacy are more likely to employ fintech solutions, which finally contribute to the SME developments

(Hidayat-ur-Rehman, 2024). Thus, we hypothesises that

H5a: Financial Literacy moderates the relationship between intention and behaviour for OCC adoption.

Scholars have categorised financial literacy into subjective and objective categories for further investigation (Xiao & Porto, 2017). Objective financial literacy pertains to consumers' theoretical comprehension of financial knowledge and their capacity to apply it, while subjective financial literacy pertains to individuals' awareness of their financial knowledge and their self-efficacy to engage in financially advantageous behaviours (L. Liu & H. Zhang, 2021). Scholars have consistently emphasised that financial literacy should not only include objective financial knowledge and abilities, but also the degree of subjective confidence in one's ability to engage in actions that improve financial well-being (Adam et al., 2017; Khalisharani et al.,

2022). Subjective and objective financial literacy have varying degrees of influence on the financial behaviour of individuals. Prior empirical research has suggested that subjective financial knowledge or confidence may have a more substantial impact than objective financial knowledge on both long-term and short-term financial behaviours (Diem et al., 2023). Also, subjective financial literacy has been empirically shown to have a slightly greater impact on budgeting than objective financial literacy (Amagir et al., 2020). Thus, this study hypothesises that

H5b: Objective Financial Literacy has a moderating effect in the relationship between intention and behaviour.

H5c: Subjective Financial Literacy has a moderating effect in the relationship between intention and behaviour.

Following the aforementioned hypothesis, the conceptual framework for this study is illustrated in Figure 1.

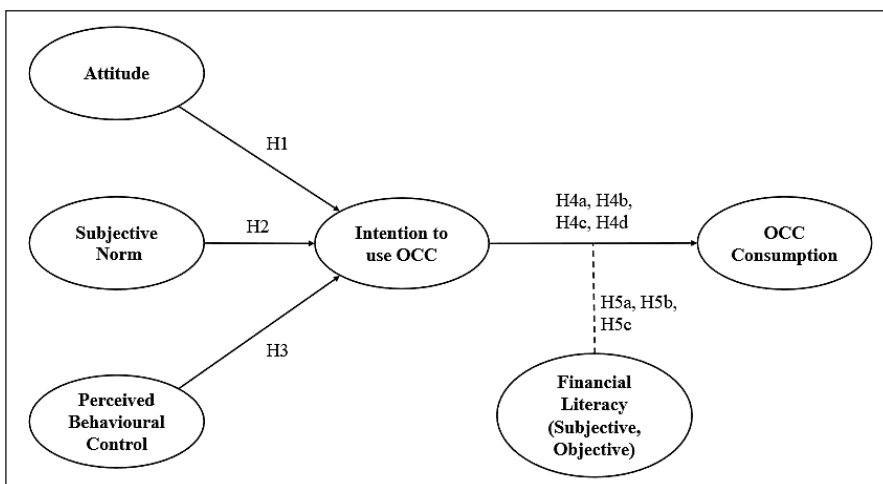


Figure 1. Conceptual framework

METHODS

Measurement

A questionnaire was developed to assess the variables in the study, with items modified from prior empirical research. The measurement of the variables attitude, subjective norm, perceived behavioural control, intention, and behaviour from the Theory of Planned Behaviour comprises questions adapted from Ajzen's recommendations while also integrating the OCC context (Cloutier & Roy, 2020). This investigation for Objective Financial Literacy employs items from Houston's survey on student financial literacy (Houston, 2012), whereas subjective financial literacy consists of a compilation of items evaluated in several previous empirical studies (L. Liu & H. Zhang, 2021). The study employed a five-point Likert scale to capture subjective views, which is likely to produce normally distributed results (Taherdoost, 2019). The scale ranges from one to five, representing "strongly disagree", "disagree", "neither agree nor disagree", "agree", and "strongly agree".

Sampling Techniques

A nationwide survey is neither feasible nor analytically desirable due to the huge EA population and the uneven OCC development (Jiang et al., 2024; Kang et al., 2025), thus, Shandong Province was selected as the sampling site. First, Shandong has a leading OCC market in China, indicating a substantial user base (Song & Appiah-Otoo, 2022). Secondly, its sectoral composition has closely aligned with the national

industrial profile. Approximately 7% of provincial GDP derives from agriculture, about twice the agricultural share observed in metropolises such as Beijing, Shanghai, the Yangtze River Delta and the Pearl River Delta (Kang et al., 2025; Ma et al., 2025). This alignment enhances external validity and generalisability by capturing respondents from less developed areas engaged in lower skill production, and thus provides more inclusive perspectives for policymakers to better understand EA's OCC usage patterns.

This study adopted quota sampling due to the absence of a complete sampling framework (Ochoa & Porcar, 2018). In line with Bryman (2016), and because city-level EA counts were unavailable, quotas were allocated to prefecture-level cities in proportion to their shares of the provincial population. The quota assignment is illustrated in Figure 2.

Data Collection

This study was conducted using a self-administered questionnaire distributed via Wenjuanxing, a Chinese internet survey platform. The online strategy improved effective data collecting while reducing researchers' financial burdens (Evans & Mathur, 2018). Furthermore, the self-administered approach allows respondents to complete the survey independently, avoiding any biases caused by the sensitivity of the topic to be investigated and interviewers' behaviour when doing research (Sheatsley, 1983). The Wenjuanxing link was released on WeChat, TikTok, QQ, Redbook, and

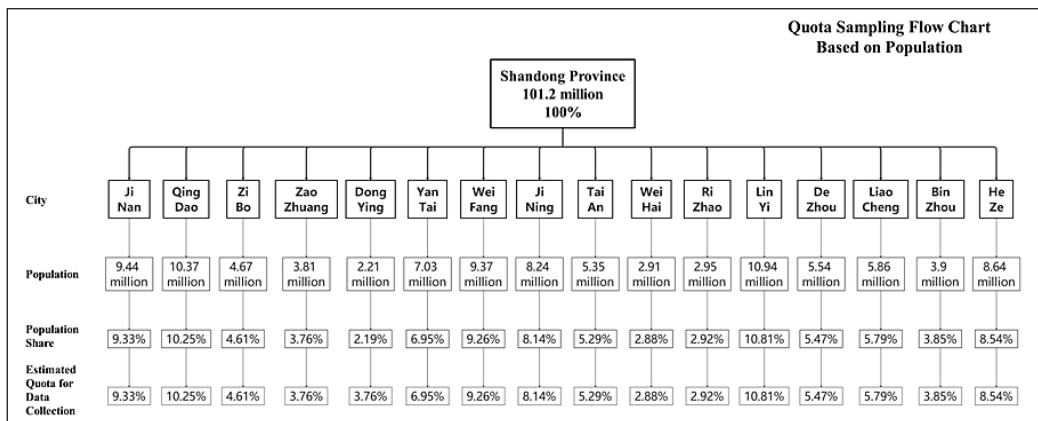


Figure 2. Quota sampling flow chart

Weibo. Before answering, two screening conditions were applied: respondents had to have used OCC previously and be between the ages of 18 and 29. Participants were informed that the survey was anonymous and only for research purposes, and that they may withdraw at any time without penalty. As an incentive, completion offered a chance to enter a lucky draw sponsored by the Wenjuanxing platform.

Researchers first assessed the time required to complete the questionnaire (10 minutes), thus excluding responses taking less than five minutes or exceeding ten minutes. Additionally, questionnaires exhibiting excessive consistency in responses (such as selecting “strongly disagree” for all items) and those originating from IP addresses outside Shandong Province were also excluded. Finally, 700 questionnaires were distributed, of which 609 valid responses were retained. Wenjuanxing’s integrated IP tracking system was used to verify the completion of the assigned quotas, and the overall

deviation was kept within 5%, consistent with accepted standards for sampling error in the literature (Etikan, 2019).

Data Analysis

Structural Equation Modelling (SEM) was used to analyse the data. SEM estimates latent constructs and their indicators through Confirmatory Factor Analysis, and tests directional relations among constructs through Path Analysis in a single framework (Cheng, 2001). This joint estimation improves efficiency and yields more reliable coefficients. Unlike ordinary regression or simple path analysis, SEM separates true score from measurement error, evaluates model fit, and handles complex structures such as multiple mediations and layered paths. By accounting for measurement error and indirect effects, SEM provides clearer evidence on the relationships among constructs that standard techniques often overlook (Jöreskog, 1978). This emphasises the real discoveries derived from the data itself rather than the perfect model fit (Musil

et al., 1998). Given that the theoretical model employed in this research has been repeatedly validated, and the objective of this study is to affirm the theory's application to the phenomenon under the Chinese EAs' OCC adoption context, CB-SEM is more appropriate for this study (Hair et al., 2019). The execution for data analysis will be conducted by AMOS.

PROCESS Macro was employed to test moderation effects. Although AMOS is effective for testing mediation and structural relationships, its fit indices are primarily designed for linear models and, in the case of moderation, only provide significance levels and path coefficients. As a result, the overall model fit and the strength of moderating effects are difficult to evaluate (Marsh et al., 2004). In contrast, PROCESS Macro provides R^2 and ΔR^2 , conditional effects, and a dataset for simple slope plots, which allow researchers to evaluate not only the moderation effect size but also the detailed moderation mechanisms (Hayes, 2018). It also centralises moderators automatically, improving efficiency compared to AMOS, which requires manual handling (Memon et al., 2019). Given this study's aim of comparing subjective and objective financial literacy as moderators, PROCESS complemented the SEM analysis and enhanced interpretability.

Test for Measurement Model

Prior to performing the path analysis, this study conducted the CFA to verify the robustness of the research model (Jöreskog, 1978). First, the robustness of

the measurement model is investigated, i.e. whether the measurements reflect the dimensions they intend to measure, and the results for indicator reliability (Hair et al., 2022), internal consistency (Cheng, 2001), convergent and discriminant validity (Fornell & Larcker, 1981) are as follows.

The CFA results in Table 1 indicate that all indicator loadings exceeded the recommended threshold of 0.70, except for a few items with loadings marginally below this level. These indicators were retained because their values remained above the minimum acceptable threshold of 0.40, and they provided important theoretical contributions to the measurement instruments (Hair et al., 2022). Composite Reliability (CR) for every factor is above 0.7, and Average Variance Extracted (AVE) for each construct is greater than 0.4 (Hair et al., 2019), the square root AVE of each construct in Table 2 is greater than the correlation coefficient of that construct with others (Fornell & Larcker, 1981), indicating a satisfied level of reliability and validity for the measurement model. At the same time, the tests of model fit, as shown in Table 3, satisfy the condition that the absolute fit index χ^2/df is less than 5 (Dash & Paul, 2021), Root Mean Square Error of Approximation (RMSEA) is below 0.10 (Musil et al., 1998), Incremental fit index of Comparative Fit Index (CFI), Tucker-Lewis's Index (TLI) values are both greater than 0.9 (Hu & Bentler, 1999), demonstrating that the research model can adequately explore the OCC usage mechanism in Chinese EA.

Table 1
Descriptive results for the measurement model

Construct	Items	IL (>0.4)	CR (>0.6)	AVE (>0.4)
Attitude	AT1	0.733	0.920	0.562
	AT2	0.772		
	AT4	0.787		
	AT5	0.717		
	AT6	0.716		
	AT7	0.75		
	AT8	0.736		
	AT9	0.78		
	AT10	0.754		
	Subjective Norm	SN1		
SN2		0.756		
SN3		0.796		
SN4		0.699		
SN5		0.731		
SN6		0.771		
SN7		0.752		
SN8		0.738		
SN9		0.76		
SN 10		0.757		
Perceived Behavioural Control	PBC1	0.718	0.921	0.539
	PBC2	0.744		
	PBC3	0.73		
	PBC4	0.695		
	PBC5	0.735		
	PBC6	0.706		
	PBC7	0.75		
	PBC8	0.752		
	PBC9	0.748		
	PBC10	0.763		
Intention	IT1	0.679	0.910	0.502
	IT2	0.704		
	IT3	0.717		
	IT4	0.661		
	IT5	0.712		
	IT6	0.722		
	IT7	0.729		
	IT8	0.728		
	IT9	0.705		
	IT10	0.722		

Table 1 (continued)

Subjective Financial Literacy	FL1	0.711	0.900	0.475
	FL2	0.751		
	FL3	0.729		
	FL4	0.711		
	FL5	0.750		
	FL6	0.756		
	FL7	0.744		
	FL8	0.703		
	FL9	0.724		
	FL10	0.743		
Behaviour	BH1	0.686	0.920	0.537
	BH2	0.706		
	BH3	0.688		
	BH4	0.674		
	BH5	0.667		
	BH6	0.689		
	BH7	0.722		
	BH8	0.723		
	BH9	0.664		
	BH10	0.67		

Note. IL, Indicator Loading; CR, Composite Reliability; AVE, Average Variance Extracted

Table 2
Fornell & Lacker's test for discriminant validity

	AT	SN	PBC	IT	SBFL	BH
AT	0.750					
SN	0.480	0.751				
PBC	0.567	0.496	0.734			
IT	0.493	0.468	0.501	0.708		
SBFL	-0.210	-0.159	-0.183	-0.185	0.689	
BH	0.506	0.479	0.491	0.504	-0.512	0.733

Note. AT = Attitude; SN = Subjective Norm; PBC = Perceived Behavioural Control; IT = Intention; SBFL = Subjective Financial Literacy; BH = Behaviour

Table 3
Test for model fit

Index	χ^2 /df	Df	RMSEA	CFI	TLI
Model Performance	1.609	1637	0.032	0.952	0.950
Criterion for Goodness of Fit	<5		<0.10	>0.9	>0.9

Note. df, Degree of Freedom; RMSEA, Root Mean Square Error of Approximation; CFI, Comparative Fit Index; TLI, Tucker-Lewis's Index

Test for Structural Model

Normality is an essential prerequisite for parametric testing; failure to meet this prerequisite may result in inferences that significantly diverge from the real circumstances (Orcan, 2020). Similarly, the issue of collinearity may also result in erroneous study outcomes (Mason & Perreault, 1991). Therefore, prior to conducting the path analysis, a normality and collinearity test should be performed. This study will assess normality through the examination of kurtosis and skewness, and the Variance Inflation Factor test will be conducted to measure the degree of collinearity. The data analysis results indicate that the kurtosis and skewness values are all below 1, signifying an adequate degree of normality (Kim, 2013), while the VIF values for each construct range from 1 to 2, well below the threshold of 3, reflecting a reasonable level of collinearity (Mansfield & Helms, 1982). Simultaneously, R^2 is utilised to assess the degree to which the dependent variable is explained by the independent variable. The R^2 value spans from 0 to 1, with elevated values signifying greater explanatory power; typically, an R^2 of 0.25 or above is regarded as medium

explanatory power (Hair et al., 2022). The findings indicate that intention and behaviour account for 35% and 29% of the variance, respectively, highlighting the robust explanatory capacity of the research model in this study.

RESULTS AND DISCUSSION

Direct Effects

Path analyses were performed using AMOS 26, and the results for direct effects are presented in Table 4. The data analysis results indicate that attitude ($\beta = 0.243$, $p < 0.001$), subjective norms ($\beta = 0.226$, $p < 0.001$), and perceived behavioural control ($\beta = 0.251$, $p < 0.001$) positively affected EA's intention to utilise the OCC product, consequently substantiating H1, H2, and H3 with empirical proof. Among the three factors influencing intention, subjective norms have a minimal effect, whereas attitude and perceived behavioural control exert a significantly stronger influence. This suggests that for EAs, their OCC use is predominantly governed by internal discretion rather than external impositions. The intention to utilise OCC significantly influenced OCC usage behaviour ($\beta = 0.202$, $p < 0.001$), hence supporting H4a.

Table 4
Results for direct effects

Hypothesis	β	S.E.	C.R.	P	Results
H1: AT \rightarrow IT	0.243	0.047	4.888	***	Supported
H2: SN \rightarrow IT	0.226	0.040	4.886	***	Supported
H3: PBC \rightarrow IT	0.251	0.049	4.976	***	Supported
H4a: IT \rightarrow BH	0.202	0.045	4.722	***	Supported

*** $p < 0.001$

Nonetheless, the restricted influence of intention on behaviour, relative to other paths in the research model, suggests that even with established intention, specific conditions may hinder the actual OCC adoption.

The mediating analysis is conducted using the integrated bootstrapping program in AMOS. As shown in Table 5, intention significantly mediated the relationship between attitudes, subjective norms, perceived behavioural control and their actual behaviour. The mediating effect of intention between attitude and behaviour was valued at 0.049 (SE = 0.017, $p < 0.001$), whereas the mediating effect of intention between subjective norms and perceived behavioural control was ($\beta = 0.042$, SE = 0.015, $p < 0.001$) and ($\beta = 0.052$, SE = 0.018, $p < 0.001$), respectively. The findings support H4b, H4c, and H4d. In the examination of mediating effects, this study discovered that, while prior TPB-based literature highlighted the significant

mediating role of intention, the findings indicated that this role was less pronounced. This may be attributed to the presence of additional moderating variables between intention and behaviour, or the influence of certain impulsivity-related variables that may disrupt the intention formation process, thereby directly motivating EA to engage in OCC adoption behaviour.

Moderating Effects

Utilising the Process Macro approach, the moderating effects of overall financial literacy, objective financial literacy, and subjective financial literacy were assessed, respectively and were numbered as model 1, model 2, and model 3. The study discovered that overall financial literacy, objective financial literacy, or subjective financial literacy significantly moderated the relationship between EA's intention to utilise OCC and final behaviour.

In model 1's investigation of the moderating influence of financial literacy,

Table 5
Mediating effects

Hypothesis	Path	Effect	Estimate	SE	bias-corrected 95%			Results
					Lower Bound	Upper Bound	p	
H4b	AT→IT→BH	Direct	0.162	0.051	0.063	0.261	0.002	Supported
		Indirect	0.049	0.017	0.021	0.089	0.000	
		Total	0.211	0.051	0.108	0.311	0.000	
H4c	SN→IT→BH	Direct	0.161	0.045	0.078	0.253	0.000	Supported
		Indirect	0.042	0.015	0.019	0.078	0.000	
		Total	0.203	0.045	0.118	0.297	0.000	
H4d	PBC→IT→BH	Direct	0.145	0.049	0.052	0.24	0.002	Supported
		Indirect	0.052	0.018	0.024	0.098	0.000	
		Total	0.197	0.05	0.101	0.297	0.000	

the interaction term Intention × Financial Literacy significantly predicted intention ($\beta = -0.179, SE = 0.028, t = -6.312, p < .001$), indicating that financial literacy substantially moderated the effect of intention on the dependent variable; therefore, H5a is supported. The model accounted for a total variance of 41.3% ($R^2 = 0.413$), whereas the inclusion of the moderating factor yielded $\Delta R^2 = 0.039$, signifying that the introduction of financial literacy enhanced the model’s explanatory capacity by nearly 4% (Table 6). Further simple slope analysis revealed that

the influence of intention on behaviour was more pronounced at lower levels of financial literacy and diminished at higher levels of financial literacy (Figure 3).

Conversely, when objective financial literacy is analysed independently from overall financial literacy, its moderating influence on the relationship between intention and behaviour towards OCC use is significantly diminished ($\beta = -0.129, SE = 0.032, t = -3.983, p < .001$), and the inclusion of objective financial literacy does not substantially enhanced model’s explanatory

Table 6
Moderating effect of overall financial literacy

Model 1	DV: Intention					
	Coefficient	SE	t	F	R ²	ΔR^2
Intention	0.361	0.032	11.303	141.829	0.413***	0.039***
Financial Literacy	-0.364	0.028	-11.210			
Intention × Overall Financial Literacy	-0.179	0.028	-6.312			

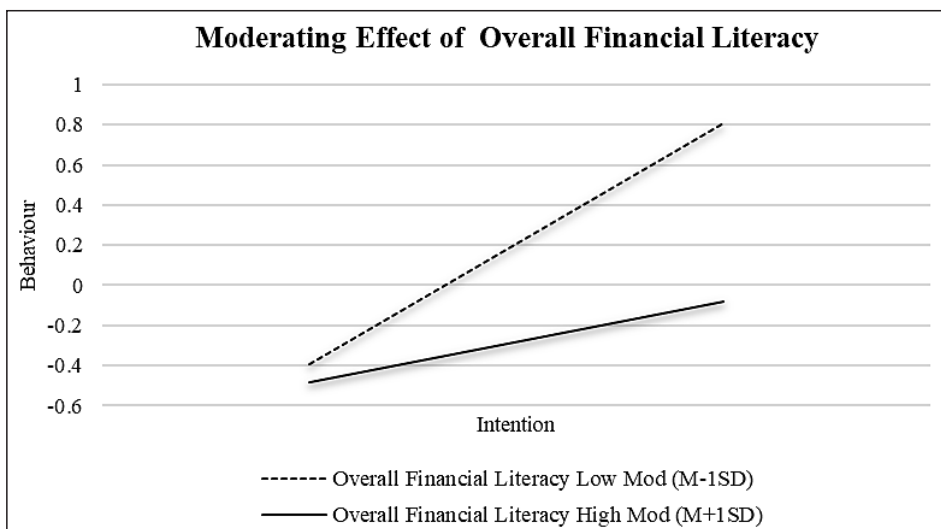


Figure 3. Simple slope plot for overall financial literacy’s moderating effect

power ($\Delta R^2 = 0.019$), which supports H5b (Table 7). Upon comparing the slope plots (Figure 4), it is evident that the slopes of the two lines exhibit considerable similarity for both groups with high and low financial literacy, demonstrating that their intention and behaviour regarding OCC usage are minimally influenced by their level of objective financial literacy.

H5c is also validated by the statistical evidence, and subjective financial literacy was shown to exert a greater moderating influence on the relationship between intention and behaviour in comparison to objective financial literacy ($\beta = -0.187$,

$SE = 0.029$, $t = -6.359$, $p < .001$), and the inclusion subjective financial literacy greatly contributed model's explanatory power ($\Delta R^2 = 0.040$) compare to objective financial literacy (Table 8). This influence can also be observed intuitively through simple slope plots, as illustrated in Figure 5, where the strength of the relationship between intention and behaviour varies significantly at different levels of supervisory financial literacy, with elevated financial literacy in an individual markedly attenuating the robust relationship between intention and behaviour.

Table 7
Moderating effect of objective financial literacy

Model 2	DV: Intention					
	Coefficient	SE	t	F	R ²	ΔR^2
Intention	0.424	0.036	11.937	71.393	0.261***	0.019***
Financial Literacy	-0.163	0.035	-4.633			
Intention× Objective Financial Literacy	-0.129	0.032	-3.983			

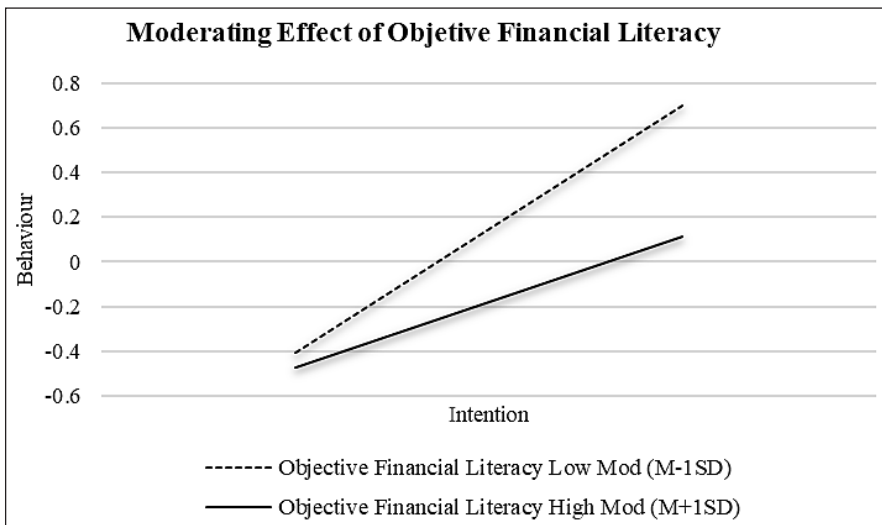


Figure 4. Simple slope plot for objective financial literacy's moderating effect

Table 8
Moderating effect of subjective financial literacy

Model 3	DV: Intention					
	Coefficient	SE	t	F	R ²	ΔR ²
Intention	0.376	0.032	11.694	133.631	0.399***	0.040***
Financial Literacy	-0.347	0.033	-10.675			
Intention × Subjective Financial Literacy	-0.187	0.029	-6.359			

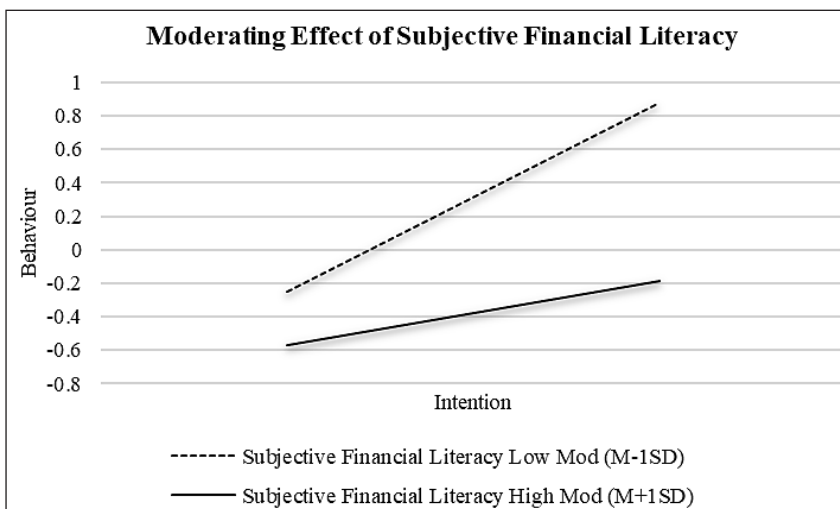


Figure 5. Simple slope plot for subjective financial literacy’s moderating effect

The findings indicate that, in alignment with previous studies employing the TPB model, attitude, subjective norms, and perceived behavioural control greatly influenced the intention of Chinese EAs to utilise OCC, which eventually had a substantial effect on their actual OCC usage behaviour. The mediating role of intention between attitude, subjective norms, and perceived behavioural control, as well as their final behaviour, remained significant but with a minimal mediation effect. The examination of the moderating effects of financial literacy indicates that both overall financial literacy and objective/subjective

financial literacy all considerably affect the relationship between intention and behaviour. Moreover, subjective confidence in financial behaviour significantly influences individual behaviour in a stronger way than objective financial literacy. The detailed discussion is as below.

The influx of OCC products into the lives of Chinese EAs inevitably captured their favour due to their convenience of application, comprehensive offerings when using, and inherent mystique as a fintech, leading to a predisposition for a favourable view of OCC. Attitudes can be instrumental or emotional (Rhodes & Courneya, 2005),

OCC enables individuals to access credit products at home, offering significant convenience to users residing in rural places lacking regular banking facilities (Hau et al., 2019), thereby meeting their instrumental needs. The authorisation procedure for OCC products is conducted by AI, alleviating individuals from the asset discrimination often seen in the banking sector, thereby enhancing the user's sense of respect and emotional satisfaction (McDonald & Dan, 2021). In this instance, it makes it difficult for EA to maintain a negative disposition towards OCC.

Simultaneously, as EA of the identity-forming age, they are particularly susceptible to the influence of their surrounding individuals, including parents, peers, and community associations, which can profoundly affect their behaviour (O'Connor et al., 2011). The promotion of OCC products by authorities to rejuvenate the consumer market (Cai et al., 2024) and the frightening penetration rate of nearly one in three individuals among EAs utilising OCC is subconsciously shaping the subjective norms of EAs regarding OCC usage, leading them to perceive the adoption of OCC products in modern society as a trendsetting and desirable pursuit (Xie et al., 2021). Regarding perceived behavioural control, individuals in the digital age have long been familiar with digital payment methods and are comfortable with the use of OCC, hence, they do not concern themselves with the capability of employing OCC (Li et al., 2019). Ultimately, this study found that intention significantly influence an individual's ultimate OCC

practice, as any behaviour must stem from the concept of undertaking an action (C. Zhang et al., 2021). Considering the context, the prevalence of OCC in Chinese EA is unsurprising.

Financial literacy strongly moderates the intention-behaviour link in OCC adoption, with subjective literacy having a greater constraining influence than objective literacy. One possible explanation is that, while objective knowledge is essential, the real-life financial literacy necessitates the confidence to properly manage financial and OCC issues (L. Liu & H. Zhang, 2021). Beneficial financial behaviours are motivated not only by objectively measurable skills, but also by self-confidence, which will together provide long-term psychological cues that reinforce responsible decision-making and, as a result, promotes financial well-being across various age groups and literacy levels (Amagir et al., 2020; Henager & Cude, 2016).

CONCLUSION

This study employed an extended TPB model to untangle Chinese EA's OCC adoption. The results show that attitude, subjective norms, and perceived behavioural control predict intention to adopt OCC among Chinese EA. Intention mediates their effects on subsequent use. Financial literacy moderates the intention-behaviour link, with higher literacy weakening the translation of intention into use; the moderating role is stronger for subjective literacy than for objective literacy. This study provides recommendations for future researchers

to examine the OCC adoption behaviours of Chinese EA and encompassing both theoretical and practical implications for policymakers.

For theoretical limitations, this study validates the TPB model but finds that the link between intention and behaviour is weaker than expected, suggesting the presence of barriers that prevent intention from translating into action. Future research should thus examine not only direct paths but also potential moderators. In addition, the study extends existing OCC research by demonstrating that financial literacy, particularly in its subjective form, has a stronger moderating effect in the intention–behaviour relationship. The results for the moderation analysis underscore the need to treat subjective and objective financial literacy as distinct focal points when doing financial literacy-related research.

Practically, these findings provide valuable guidance for financial education interventions. Although the Dunning–Kruger effect may be present among the public’s financial literacy, the findings suggest that subjective financial literacy is not only as important as objective literacy but may also exert a stronger influence on financial behaviours. This underscores the need for policy interventions that combine systematic financial education with strategies to build confidence and psychological readiness. Policymakers, therefore, need to design financial education initiatives that combine knowledge transfer with positive psychological guidance, enabling individuals to rely on financial

self-confidence to detect potential risks and make more responsible decisions even when their objective knowledge is incomplete. In addition, given that subjective financial literacy can be improved within a relatively short period, policymakers may prioritise enhancing subjective literacy among groups with lower objective literacy. Such efforts could help offset knowledge deficits and enable individuals to respond more effectively to financial challenges in the short term.

This study still has several limitations. Although financial literacy was examined as a moderator of the intention–behaviour link in OCC adoption, the relatively weak correlation suggests that other moderators may also be relevant and warrant further investigation. In addition, reliance on a Chinese sample, drawn from the world’s largest OCC market, may limit the transferability of the findings to different cultural and institutional contexts. Future research should therefore identify additional moderators that influence prudent OCC use and further examine how subjective and objective financial literacy functions across diverse settings with culturally localised instruments.

ACKNOWLEDGMENT

This research received no specific grant from any funding agency in public, commercial, or not-for-profit sectors.

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