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Social Cognitive Theory Perspective on Undergraduate Accounting Students' Intentions to Register for Corporate Social Responsibility Courses in China: The Mediating Role of Proactive Personality and the Moderating Role of Self-Identity

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Abstract. Growing expectations for corporate social responsibility (CSR) competence in the accounting profession have increased the need to understand why undergraduate accounting students choose CSR-related coursework. Drawing on social cognitive theory (SCT), this study investigates how self-efficacy and outcome expectancy shape undergraduate accounting students' intentions to enroll in CSR courses, and whether these effects operate through proactive personality (mediator) and vary by self-identity (moderator). Using a cross-sectional survey of accounting undergraduates in Hebei, China (n = 372), we analyzed the proposed moderated-mediation model with structural equation modeling in AMOS 24.0 and supplementary moderation/mediation tests in SPSS. Results indicate that self-efficacy and outcome expectancy both significantly predict proactive personality, which in turn partially mediates their effects on enrollment intention.

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Importantly, self-identity strengthens the links from self-efficacy to proactive personality and from outcome expectancy to proactive personality, such that these relationships are stronger among students with high self-identity. The findings extend SCT in business education by (a) identifying proactive personality as an agency-based mechanism translating SCT cognitions into course-selection intentions and (b) demonstrating self-identity as a boundary condition that amplifies SCT pathways. The strong effect of outcome expectancy also challenges the view that outcome expectancy is secondary to self-efficacy in this context, suggesting that students must anticipate tangible benefits from CSR coursework. Practically, curriculum planners should communicate clear CSR course outcomes and consider placement in the sixth or seventh semester to enhance social responsibility awareness.

Keywords: social cognitive theory; self-identity; proactive personality; CSR course; behavioral intention

1. Introduction

More and more research shows that, under current higher education, corporate social responsibility (CSR) plays a pivotal role in the business environment. The impact of disease and war has brought about tremendous changes in the global business environment (Ratten, 2020). In this context, corporate social responsibility has become central to how firms pursue sustainable development while coping with heightened uncertainty (Lu et al., 2022). CSR is not only reputational; it can shape core business practices, including risk management (Eriandani & Wijaya, 2021; Kim et al., 2021).

Prior evidence suggests that firms with stronger CSR performance are more inclined to adopt integrated risk management practices, and that CSR initiatives directed at both primary and secondary stakeholders can promote the implementation of these practices (Lu et al., 2022). As expectations for responsible business intensify, accounting education becomes a critical channel for developing professionals who can embed CSR considerations into reporting, governance, compliance, and stakeholder communication. Reflecting this shift, the AACSB's early efforts to incorporate CSR through service-learning initiatives contributed to the emergence of a sustainability-oriented model and principles for student-faculty interaction and accreditation-relevant CSR content (Hopkins et al., 2021; Reavis et al., 2021).

Social responsibility education is well established in many developed countries but remains uneven in China. Rapid economic growth has been accompanied by corporate misconduct and financial fraud. The 2020 Luckin Coffee scandal, involving fabricated sales of about 2.2 billion RMB in 2019, illustrates the consequences of ethical lapses and weak accountability. Because university students are approaching major career decisions, examining their CSR orientation broadens CSR research by identifying factors shaping their future professional stance (Galvão et al., 2019). Strengthening CSR education among accounting students is therefore essential, as they are expected to support transparent, compliant, and stakeholder-responsive practices. Yet CSR courses in Chinese

business schools are concentrated at the postgraduate level, and undergraduate accounting majors rarely receive systematic exposure, raising concerns about preparedness for ethical judgment, transparency, and sustainable value creation.

To explain why students choose CSR-related learning opportunities, education research frequently draws on social cognitive theory (SCT) (Bandura, 1986), which highlights how self-efficacy and outcome expectancy shape behavior. Self-efficacy motivates effort and persistence in learning (Schoenfeld et al., 2017), and students with stronger efficacy and outcome expectations are more likely to engage proactively with CSR knowledge.

However, longitudinal evidence on how CSR education shapes longer-term attitudes and behaviors is limited, and more attention is needed on personal and contextual influences. Professional identity formation related to CSR has received insufficient examination despite its relevance (Mascarenhas, 2020). Scholars also call for integrating active learning methodologies to enhance professional and emotional competences (Francischetti et al., 2014). Moreover, evidence that higher education institutions lag in CSR implication and disclosure highlights the need for deeper inquiry into CSR integration within accounting programs (Abugjreiban, 2023).

Although SCT explains learning behavior, CSR course enrollment decisions may also depend on how students perceive themselves and translate beliefs into action. Proactive personality helps explain how self-efficacy and outcome expectations become behavioral intentions, particularly in elective contexts. Self-identity may further strengthen or weaken these relationships, as students who identify with responsible professional values are more likely to align course choices accordingly. These mechanisms are especially relevant in China, where undergraduate exposure to CSR remains limited despite growing societal attention to responsible conduct.

Against this background, this study addresses prior limitations in two ways. First, it applies SCT to examine undergraduate accounting students' intentions to enroll in CSR courses. Second, it extends the model by incorporating proactive personality as a mediating mechanism and self-identity as a conditional factor influencing CSR learning intentions. By clarifying the psychological process linking cognitive beliefs to course-registration intentions and identifying the boundary role of self-identity, this research contributes evidence from the Chinese context. It links CSR education to real-world concerns such as the Luckin Coffee case and offers actionable implications for designing CSR curricula that translate students' beliefs into sustained learning intentions and responsible professional development.

CSR implementation is also associated with broader organizational benefits — such as employee trust and firm reputation (Tangngisalu et al., 2020), improved financial performance and potential competitive advantage (Ikram et al., 2019), and a richer global research agenda connecting CSR and innovation (Chu et al.,

2022; Wu et al., 2018)—underscoring the importance of preparing future accounting professionals to engage with CSR meaningfully.

2. Literature Review

2.1 Sustainability Education

Sustainability education is rooted in a broad set of concepts — such as social responsibility, green development, and business ethics — whose meanings and implementation expectations differ across countries (Glavič & Lukman, 2007). Within this landscape, CSR and sustainability are often used interchangeably in both research and practice, yet they are analytically distinguishable: sustainability typically emphasizes society- and environment-wide development, whereas CSR more directly foregrounds how firms operate responsible conduct as part of organizational sustainability (Strand et al., 2015). In operational terms, sustainability in corporate settings involves social and environmental factors embedded in business activities and often goes beyond mere regulatory compliance by placing higher performance requirements on firms (Gallego, 2006). Accordingly, sustainability education increasingly frames CSR not as an “add-on,” but as an integrative logic that connects stakeholder responsibilities, environmental stewardship, and organizational decision-making.

A key synthesis across sustainability and CSR literature is that sustainability-oriented practices must reconcile social interests with corporate performance if they are to be durable and credible (Lopez et al., 2007; Van Marrewijk & Werre, 2003). While CSR may appear to conflict with short-term profitability, sustainability-focused CSR requires organizations to balance societal value with business viability; otherwise, a narrow focus on short-term gains can undermine long-run organizational sustainability and even survival. This is why the link between sustainability and financial rewards is treated as analytically central rather than incidental (Tien et al., 2020). At the governance level, sustainability outcomes are also shaped by the interaction of corporate governance actors, reinforcing that sustainability performance is not only a matter of firm intent but also of organizational roles and accountability structures (Aguilera, 2021).

In accounting education, the integration of CSR and sustainability has gained momentum because sustainability demands can only be enacted when they are translated into measurable disclosures, controls, and decision-relevant information. The domain where accounting expertise is pivotal (Al-Hazaima et al., 2024). The education-focused CSR literature further shows an evolution in how CSR is taught and justified: early discussions in the 1960s and 1970s emphasized philanthropy and discretionary charitable contributions (Carroll & Shabana, 2010), whereas more recent work emphasizes strategic alignment between responsible business conduct and value creation for both firms and society (Carroll & Brown, 2018). This shift strengthens the rationale for embedding sustainability content in accounting curricula and makes students’ engagement with sustainability education a consequential educational outcome rather than a peripheral preference.

Empirical work also suggests that student engagement with sustainability is heterogeneous and can be shaped by individual and contextual characteristics. For example, Hadi and Abdel-Razzaq (2024) examined accounting students' interest in sustainability while considering demographic factors such as gender, age, and academic classification, underscoring that sustainability education outcomes depend on who students are and how learning opportunities are structured. Complementary streams reinforce that sustainability competence is multidimensional: a bibliometric review highlights how sustainable human resource management supports corporate sustainability through research clusters that include green human resource management, CSR, and sustainable HRM, while also noting that research attention has often been skewed toward environmental issues at the expense of human and social dimensions (Kainzbauer et al., 2021).

Likewise, a stakeholder-oriented perspective emphasizes that firms should create economic and societal value by realigning objectives with stakeholder management and environmental responsibility, seeking stakeholder well-being while reducing environmental negative externalities (Camilleri, 2017). Together, these insights imply that sustainability education must cultivate not only awareness but also a willingness to invest effort in learning sustainability-related competencies – making students' intention to participate in sustainability learning opportunities a meaningful indicator of engagement.

Accounting students are therefore key actors in sustainability education because their future professional roles place them at the center of organizational accountability, reporting credibility, and the operationalization of CSR into systems and decisions. From a strategy perspective, firms often need to focus on a leverage point to advance CSR implementation, and accounting staff can serve as such a reference point for understanding how CSR is embedded in organizational practice (Porter & Kramer, 2006). At the formative stage, accounting students' understanding of CSR develops gradually during their business school education (Borges et al., 2017), which elevates curriculum design as a primary mechanism through which sustainability capabilities and orientations are cultivated. In other words, sustainability education in accounting is not only about transmitting CSR knowledge but also about shaping the readiness of future professionals to enact CSR through accounting-related practices.

China provides a particularly salient context for sustainability education because CSR and business ethics teaching historically faced institutional and social constraints. Interview-based evidence indicates that weak social pressure and limited motivation for business ethics teaching, together with insufficient teaching aids, created barriers to CSR education in its earlier stages. Consistent with this, fewer than 40 percent of business schools in China offered CSR-related courses in 2006, and among those schools, only slightly more than 40 percent required them (Lu et al., 2021). Although recent years have seen notable expansion of CSR- and ethics-related curricula across graduate and undergraduate levels, the availability, emphasis, and delivery of CSR education remain uneven across

institutions and programs, keeping students' decisions to enroll in CSR courses a practically meaningful and policy-relevant outcome.

Synthesizing the above, sustainability education research converges on two core points: (1) sustainability and CSR are increasingly framed as integrative, value-creating, and governance-relevant business imperatives rather than philanthropic add-ons (Aguilera, 2021; Carroll & Brown, 2018; Strand et al., 2015) and (2) accounting education is a high-leverage site for operationalizing these imperatives because accountants translate CSR aspirations into systems of measurement, reporting, and accountability (Al-Hazaima, et al., 2024; Porter & Kramer, 2006).

We therefore treat students' intention to enroll in CSR courses as a proximal, behavior-relevant indicator of sustainability education engagement, especially in China where CSR course provision has been historically limited and remains uneven (Lu et al., 2021). This positioning links sustainability education directly to the focal outcome of the study and clarifies why accounting students, as future accountability professionals, are central to understanding CSR course enrollment decisions.

Table 1: Critical synthesis of sustainability education literature and implications for CSR course enrollment intention

Literature stream	Core insight	Key references (as cited)	Implication for intention to enroll in CSR courses
Conceptual foundations	CSR and sustainability overlap but are conceptually distinguishable; sustainability extends beyond compliance	(Gallego, 2006; Glavič & Lukman, 2007; Strand et al., 2015)	Clear conceptual framing can increase perceived relevance of CSR courses as "core," not peripheral
Business case & governance	Sustainable CSR requires balancing social value and corporate performance; governance actors shape sustainability outcomes	(Aguilera, 2021; Lopez et al., 2007; Tien et al., 2020; Van Marrewijk & Werre., 2003)	Stronger perceived career/value payoff can motivate course enrollment as an investment in professional competence
Accounting education integration	CSR/sustainability is increasingly central in accounting education; CSR evolved from	(Al-Hazaima et al., 2024; Carroll & Brown,	Positions CSR courses as aligned with modern accounting practice, increasing

Literature stream	Core insight	Key references (as cited)	Implication for intention to enroll in CSR courses
	philanthropy to strategic value creation	2018; Carroll & Shabana, 2010)	enrollment attractiveness
Student engagement determinants	Interest in sustainability varies by student characteristics; sustainability competence is multidimensional	(Camilleri, 2017; Hadi & Abdel-Razzaq 2024; Kainzbauer et al., 2021)	Intention to enroll is a meaningful proximal indicator of engagement, shaped by personal/contextual factors
China-specific CSR education	CSR course availability historically limited and uneven; early constraints included low pressure/motivation and limited teaching aids	(Lu et al., 2021)	In a setting of uneven provision, intention to enroll captures students' proactive engagement with scarce/variable CSR learning opportunities
Why accounting students' matter	Accounting roles provide a leverage point for CSR implementation; CSR understanding forms gradually through education	(Borges et al., 2017 ; Porter & Kramer, 2006)	Accounting students are key actors; enrollment intention signals early commitment to integrating CSR into future professional practice

2.2 Social Cognitive Theory (SCT)

Social Cognitive Theory has been widely highlighted in prior research and has shown a certain level of effectiveness in explaining different types of intentions. The theory includes several key variables that interact to influence human intention and behavior. Previous studies have indeed provided valuable insights into the relationship between various psychological factors and behavioral intentions.

For instance, Bandura (2018) emphasized that self-efficacy, which refers to an individual's belief in their ability to successfully execute a specific behavior, plays a crucial role in shaping behavioral intentions. When people have high self-efficacy, they are more likely to form positive intentions toward engaging in a particular activity as they feel confident in their capabilities to achieve the desired

outcome. Similarly, outcome expectancy, as explored by Locke (2020), directly impacts behavioral intentions. Outcome expectancy pertains to an individual's anticipation of the consequences or outcomes that will result from performing a certain behavior. If people expect favorable outcomes, such as rewards or positive experiences, they are more inclined to develop strong intentions to carry out the behavior.

2.3 Self-efficacy and Proactive Personality

Within social cognitive theory, self-efficacy reflects students' beliefs about their capability to successfully perform required learning tasks. In the context of CSR education, CSR-related self-efficacy should strengthen students' confidence in understanding CSR concepts, completing coursework, and applying CSR knowledge, thereby increasing their willingness to act rather than remain passive. Proactive personality describes a stable tendency to take initiative and actively shape one's environment; in education, this is reflected in behaviors such as seeking information, planning ahead, and initiating learning opportunities.

We argue that higher self-efficacy can foster a stronger proactive orientation toward CSR learning choices. When students believe they can succeed in CSR-related learning, they are more likely to set challenging goals, persist despite difficulties, and actively pursue opportunities. Consistent with this linkage, recent evidence in Chinese higher education highlights the close interplay between proactive personality and academic self-efficacy in explaining students' outcomes, underscoring self-efficacy as a pivotal psychological resource connected to proactive tendencies (Liu et al., 2025).

H1: Self-efficacy positively influences proactive personality.

2.4 Outcome Expectancy and Proactive Personality

Within social cognitive theory, outcome expectancy refers to beliefs about the likely consequences of performing a behavior. In the CSR-learning context, accounting students may expect that enrolling in CSR courses will enhance employability, ethical competence, professional credibility, and alignment with evolving societal and regulatory expectations. Proactive personality reflects a tendency to take initiative, anticipate future demands, and actively shape one's environment by seeking resources and opportunities.

We argue that positive outcome expectancy can strengthen students' proactive orientation toward CSR course registration. When students anticipate valued returns from CSR learning, they are more willing to invest effort in exploring electives, consulting instructors, coordinating schedules, and overcoming administrative or time constraints. These behaviors reflect proactive tendencies rather than passive compliance. Outcome expectancy also provides a goal-relevant rationale for action. Students who anticipate clear benefits are more inclined to establish enrollment goals, remain committed when encountering uncertainty, and actively seek support to obtain a place in CSR courses.

Consistent with this logic, recent evidence from Chinese higher-education settings shows that proactive personality is tightly connected to motivational processes

and downstream achievement (Liu et al., 2025), suggesting that students' expectations about the value of learning opportunities can energize proactive engagement. Moreover, a 2025 meta-analytic review indicates that educational relationships and perceived social cues can influence how personality dispositions are expressed in learning contexts (Mammadov & Avci, 2025), implying that expectancies shaped by the environment may activate proactive tendencies.

H2: Outcome expectancy positively influences proactive personality.

2.5 Self-identity as Moderator

Recent evidence indicates that personality-related academic processes are shaped by students' psychological resources and contextual meaning systems, yet such mechanisms remain underexplored in culturally embedded learning settings (Liu et al., 2025). In this study, self-identity is theorized as a key boundary condition that strengthens or weakens how motivational beliefs translate into proactive tendencies. Identity-relevant beliefs such as belonging and self-related meaning can meaningfully shape students' engagement and goal pursuit (Chiu, 2025).

Accordingly, when CSR self-identity is strong, students' self-efficacy should be more likely to translate into proactive personality expression (e.g., initiative-taking, information seeking, and opportunity crafting) because efficacy beliefs are interpreted as personally relevant and worth acting on. Similarly, strong CSR self-identity should amplify the effect of outcome expectancy on proactive personality because expected benefits (e.g., competence, recognition, career value) become internalized and identity-consistent goals. This moderation logic is consistent with evidence that relational and meaning-laden educational contexts are systematically tied to how personality dispositions are expressed in learning (Mammadov & Avci, 2025).

H3: Self-identity plays a significant moderating role in the relationship between self-efficacy and proactive personality.

H4: Self-identity serves as a significant moderator in the relationship between outcome expectancy and proactive personality.

2.6 Proactive Personality as Mediator

Social cognitive theory suggests that self-efficacy and outcome expectancy are key motivational beliefs, but they do not automatically translate into behavioral intention unless students enact agency. In this study, proactive personality functions as a central agentic mechanism that converts motivational beliefs into intentions to register for CSR courses. The tendency takes initiative and actively shapes one's environment.

When students possess strong CSR-related self-efficacy, they are more likely to express proactive tendencies such as searching for course information, consulting instructors, planning schedules, and overcoming barriers to enrollment. Similarly, when students hold positive outcome expectations, they are more inclined to initiate goal-directed actions consistent with proactive personality, which in turn strengthens their registration intentions. Recent evidence in Chinese higher

education underscores the pivotal role of proactive personality in mediation models explaining educational outcomes and its close connection with motivational resources (Liu et al., 2025). In addition, meta-analytic evidence indicates that educational processes shape how personality dispositions are expressed and linked to outcomes, supporting the view that proactive personality can transmit motivational inputs into downstream intentions (Mammadov & Avci, 2025).

H5: Proactive personality mediates the relationship between self-efficacy and behavioral intention.

H6: Proactive personality mediates the relationship between outcome expectancy and behavioral intention.

3. Research Method

The research method systematically examines factors influencing accounting students' intentions to register for CSR courses. The first section describes participants' demographic and academic background and outlines the sampling method. The research model section presents the theoretical framework and hypothesized relationships among self-efficacy, outcome expectancy, self-identity, proactive personality, and behavioral intention. The assessment of measures section explains the instruments and scales for these constructs, including sources, adaptation procedures, and reliability coefficients.

To ensure robust results, convergent validity is evaluated through factor loadings, composite reliability, and average variance extracted, while discriminant validity confirms that the constructs are distinct. Finally, the measurement model section reports confirmatory factor analysis results, fit indices, and evidence supporting the framework's adequacy before structural model analysis.

Prior to data collection, the study followed ethical requirements for human-participant research. Respondents were informed of the study purpose, that participation was voluntary, that they could withdraw without penalty, and that responses would be used for academic research. No identifying information was collected, and data were analyzed in aggregate form to protect confidentiality. Ethical clearance for the survey procedure and informed-consent process was obtained before questionnaire distribution.

3.1 Sample Size, Population, and the Sampling Technique

The study focuses on undergraduates enrolled in accounting programs in Hebei province. These students are expected to assume leadership roles and make strategic decisions for their organizations, including those related to CSR (Kempster & Jackson, 2021). Given these responsibilities, studies have examined the perspectives and preparedness of business students, particularly accounting majors (Jackson et al., 2023).

Because CSR courses are not widely available across institutions in Hebei, the sampling approach followed a pragmatic two-stage logic. First, we identified

universities offering CSR courses. This ensured respondents had a realistic basis for judging CSR course registration. Second, within these universities, questionnaires were distributed online to undergraduate accounting students to obtain a cross-section of respondents. This approach is suitable for studying enrollment intentions where course provision is uneven.

In Hebei Province, 31 colleges and universities offer accounting and financial management majors. However, 80 percent of schools do not offer CSR courses, and a few provide them as electives. The questionnaire was distributed to 400 students from seven universities offering CSR courses, and 372 questionnaires were collected, yielding a 95 percent response rate. Most respondents were female (83.06%). To detect non-response bias, the mean difference between the top 100 respondents and the bottom 100 respondents was analyzed. The results revealed no significant differences in the variables examined.

To mitigate common method bias, measures such as ensuring respondent anonymity and randomizing survey questions were implemented. Statistical analysis indicated that no single factor accounted for more than 50 percent of the total variance. Harman's single-factor test, performed through unrotated principal component analysis, showed that the first factor explained 46.192 percent of the total variance, below the 50 percent threshold, suggesting that common method bias was not a concern in this study.

3.2 Research Model

Drawing insights from a comprehensive analysis of available literature and the specific context of this research, we have formulated a research framework (Figure 1) grounded in the SCT. The figure aims to delve deeper into the intricate factors that shape accounting students' intentions toward making CSR decisions. Central to this conceptualization is the integration of the concept of self-identity, as we believe that students' self-efficacy and outcome expectancy play a pivotal role in determining their approach toward business practices.

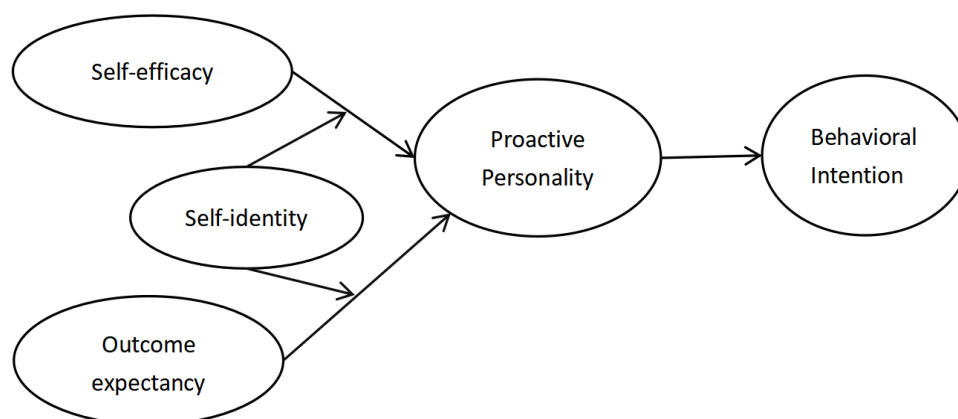


Figure 1: The Conceptual Framework

Self-efficacy refers to a person's belief in their capacity to perform successfully in specific situations or accomplish a task (Bandura, 1997). It is a central motivational

factor that influences how individuals approach challenges and persist in the face of difficulties. As Bandura noted, "People with high self-efficacy are more likely to view difficult tasks as challenges to be mastered rather than as threats to be avoided" (Bandura, 1997). Six questionnaire items adapted from Compeau and Higgins (1995) were used to measure respondents' desire to undertake an ethics course. These items were evaluated using a 7-point scale, where a score of 1 reflected complete disagreement and a score of 7 signified complete agreement. The Cronbach's α was 0.927.

Outcome expectancy refers to beliefs about the likelihood of attaining specific outcomes through one's actions, shaping motivation by influencing perceived value. Bandura (1997) stated that "Outcome expectancy foreshadows the personal benefits and costs of the outcomes." Six items adapted from Springer et al. (2001) assessed expectations regarding completion of a CSR course. Responses were measured on a 7-point scale (1 = no expectation; 7 = complete expectation). Cronbach's α was 0.921.

Self-identity refers to the roles individuals believe define themselves, guiding their priorities, beliefs, and actions (Lapsley & Stey, 2008). Two items adapted from Charng et al. (1988) and Sparks and Shepherd (1992) measured students' self-identity development through CSR study. A 7-point scale was used (1 = complete disagreement; 7 = complete agreement). Cronbach's α was 0.884.

A proactive personality is characterized by initiative, self-direction, and a willingness to pursue growth and change (Jiang et al., 2023). Ten items adapted from Seibert et al. (1999) measured initiative in learning CSR courses. Responses were recorded on a 7-point scale. Cronbach's α was 0.937.

Behavioral intention reflects willingness to act ethically and resist justifying unethical behavior (Bansal et al., 2021). Even when individuals recognize ethical issues, they must be motivated to act appropriately. Two items measured this construct using a 7-point scale. Cronbach's α was 0.902.

3.3 Assessment of Measures

In this study, maximum likelihood estimation was employed to address potential violations of the normality assumption (Raykov & Marcoulides, 2006). Following Kline's (2005) guidelines, indicators of substantial non-normality included absolute skewness values below 3 and absolute kurtosis values below 10. All SCT items met these criteria and were considered to exhibit acceptable normality. We then report the reliability of the scales, including convergent and discriminant validity, along with the results of the measurement model assessment.

In addition to procedural remedies (anonymity, voluntariness, and questionnaire design to reduce evaluation apprehension and patterned responding), statistical tests examined whether covariance among measures could be attributed to a single latent factor. Harman's single-factor test and a single-factor CFA comparison were used as complementary diagnostics. The findings indicated that

the constructs remained distinct and that common method bias was unlikely to materially distort the observed relationships.

3.4 Convergent Validity

Convergent validity requires that measurement items within a common construct demonstrate shared variance through statistical coherence (Podsakoff et al., 2012). The analysis revealed a Kaiser-Meyer-Olkin (KMO) measure of 0.929, substantially exceeding the 0.6 threshold, confirming appropriate data sampling adequacy. Three established metrics were examined to assess convergent validity: individual factor loadings, composite reliability (CR), and average variance extracted (AVE) (MacKenzie et al., 2011). In the SCT framework, observed factor loadings spanned from .419 to .899, with most exceeding conventional significance thresholds. These outcomes collectively confirm satisfactory convergent validity in the measurement model. At the construct level, the SCT models met established psychometric standards, with all CR values surpassing 0.70 and AVE estimates exceeding 0.50 (Nunnally, 1978). Table 1 presents detailed psychometric evidence supporting these conclusions.

Table 2: Descriptive Data for Measures and Bivariate Correlation in the Social Cognitive Theory

Variable	Mean	SD	CR	AVE	1	2	3	4	5
1. Self-efficacy	5.485	1.06	0.928	0.683	(0.827)				
2. Outcome expectancy	5.626	0.992	0.923	0.667	0.551 **	(0.817)			
3. Self-identity	5.952	0.963	0.885	0.794	0.261**	0.311**	(0.891)		
4. Behavioral intention	5.539	1.174	0.904	0.824	0.551**	0.581**	0.382**	(0.908)	
5. Proactive personality	5.463	1.011	0.939	0.607	0.61**	0.489**	0.368**	0.556**	(0.779)

Diagonal (in brackets): square root of average variance extracted from observed variables (items); off diagonal: correlations between constructs ** p <.01

3.5 Discriminant Validity

Discriminant validity reflects the degree to which different constructs are distinct from each other. According to Anderson and Gerbing (1988), adequate discriminant validity is achieved when the square root of the average variance extracted (AVE) for a specific construct exceeds the correlation coefficients between that construct and all other constructs.

In this study, the correlation matrices for constructs in the SCT are presented separately in Table 1. The diagonal elements represent the square roots of the AVE, which are all greater than the corresponding off-diagonal correlation coefficients. This pattern indicates that each construct shared more variance with its own items than with items of other constructs. Diamantopoulos and Siguaw (2006) also noted that discriminant validity is supported when items correlate more strongly with items from the same construct than with those from other

constructs. Hence, both models demonstrated satisfactory discriminant validity at the item level.

3.6 Test of the Measurement Model

Confirmatory factor analysis (CFA) was conducted using AMOS 24.0 to validate the measurement model for the SCT constructs. The fit indices were: $\chi^2 = 1116.986$, $df = 289$, $GFI = 0.793$, $AGFI = 0.749$, $CFI = 0.894$, and $RMSEA = 0.088$. According to Byrne (2010) and Kline (2011), these values indicate acceptable model fit. All parameters were statistically significant, with standardized estimates above 0.50, supporting convergent validity, as each subscale explained its own items better than those of other subscales (Bagozzi & Yi, 1988).

After confirming adequate measurement properties through CFA, hypotheses were tested using regression-based analyses. This approach was appropriate because the model included mediation and moderation effects that are more straightforward to estimate and interpret using observed composite scores once construct validity is established. It also avoids the added complexity and larger sample requirements of estimating latent interaction terms in full SEM, while still enabling clear tests of direct, indirect, and conditional effects consistent with the conceptual framework.

4. Results

Three analytical methods were employed to explore factors influencing accounting students' intentions to enroll in CSR courses. Initially, regression analysis was conducted to examine the relationships between variables within the SCT models. Subsequently, bootstrap analysis was to examine the mediating role of proactive personality. Lastly, hierarchical regression analysis was utilized to investigate the moderating role of self-identity.

4.1 Regression Analysis

To test the social cognitive theory (SCT) relationships, we conducted hierarchical multiple regression analyses ($N = 372$). As reported in Table 3, the overall regression models were statistically significant (all model-level F-tests $p = 0.000$), indicating that the included predictors jointly explain a meaningful proportion of variance in the dependent variables.

Table 3 reports three regression specifications. First, behavioral intention (BI) was regressed on SCT predictors (with controls entered in earlier steps), showing significant positive effects of self-efficacy (SE) and outcome expectancy (OE) (SE: $\beta = 0.465$, $t = 10.09$, $p < 0.01$; OE: $\beta = 0.227$, $t = 4.604$, $p < 0.01$), with $R^2 = 0.425$ (Adj. $R^2 = 0.414$). Second, proactive personality (PP) was regressed on SE and OE, and both predictors were positive and significant (SE: $\beta = 0.359$, $t = 6.745$, $p < 0.01$; OE: $\beta = 0.471$, $t = 8.286$, $p < 0.01$), with $R^2 = 0.418$ (Adj. $R^2 = 0.406$). Third, BI was regressed on SE, OE, and PP simultaneously; the resulting model was:

$$BI = 0.680 + 0.212 SE + 0.399 OE + 0.316 PP$$

with $R^2 = 0.468$ (Adj. $R^2 = 0.456$) and $F(8, 363) = 39.865$, $p = 0.000$. The positive and significant PP coefficient (PP: $\beta = 0.316$, $t = 7.091$, $p < 0.01$) indicates that proactive personality contributes additional explanatory power for BI beyond SE and OE.

In H1, SE shows a positive and statistically significant effect on proactive personality ($\beta = 0.359$, $t = 6.745$, $p < 0.01$), indicating that higher self-efficacy is associated with stronger proactive personality.

In H2, OE has a positive and statistically significant effect on proactive personality ($\beta = 0.471$, $t = 8.286$, $p < 0.01$), indicating that stronger expected benefits from CSR learning are associated with greater proactive personality.

Table 3: Hierarchical Regression Analyses of the Social Cognitive Theory

	BI	PP	BI
Constant	1.373**	2.193***	0.68
	2.712	5.001	1.349
SE	0.359***	0.465***	0.212***
	6.745	10.09	3.656
OE	0.471***	0.227***	0.399***
	8.286	4.604	7.091
PP			0.316***
			5.421
N	372	372	372
R^2	0.425	0.418	0.468
Adj. R^2	0.414	0.406	0.456
F	$F 7,364=38.368$, $p=0.000$	$F 7,364=37.273$, $p=0.000$	$F 8,363=39.865$, $p=0.000$

Remarks: * $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

4.2 The Moderating Effect of Self-Identity

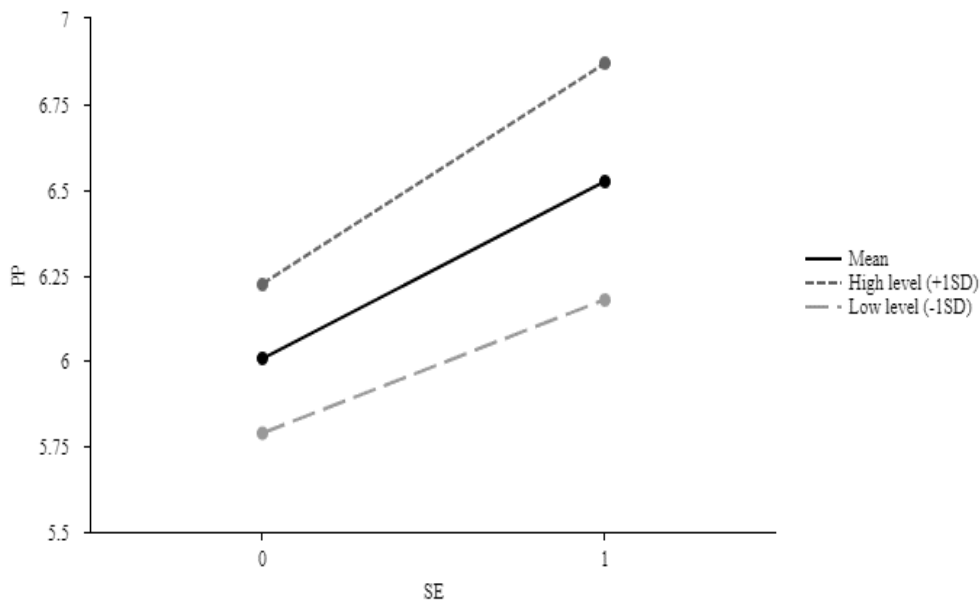
To test whether self-identity (SI) conditions the effects of SCT cognitions on proactive personality (PP), moderation analyses were conducted using PROCESS Model 1. Following Aiken and West (1991), the main effects of predictors (SE/OE) and SI were entered prior to adding the interaction terms (SE×SI; OE×SI), allowing a valid test of whether the predictor-PP relationship varies across levels of SI. As reported in Table 4, the model predicting PP is significant ($R^2 = 0.45$; $F(8,363) = 37.077$, $p = 0.000$). Self-efficacy exhibits a positive main effect on PP ($B = 0.517$, $t = 13.199$, $p = 0.000$; $\beta = 0.542$), and SI also shows a positive main effect ($B = 0.227$, $t = 5.236$, $p = 0.000$; $\beta = 0.216$). Importantly, the SE×SI interaction is positive and significant ($B = 0.132$, $t = 3.575$, $p = 0.000$; $\beta = 0.143$), indicating that SI strengthens the positive effect of SE on PP. This pattern is visualized in Figure 2, where the slope of SE predicting PP is steepest at high SI (+1 SD) and weakest at low SI (−1 SD).

Table 4: Parameter Estimates in H5 (n=372)

	<i>B</i>	S.E.	<i>t</i>	<i>p</i>	β
Constant	6.006	0.372	16.132	0.000***	-
SE	0.517	0.039	13.199	0.000***	0.542
SI	0.227	0.043	5.236	0.000***	0.216
SE*SI	0.132	0.037	3.575	0.000***	0.143
<i>R</i> ²			0.45		
Adj. <i>R</i> ²			0.438		
<i>F</i>			<i>F</i> (8,363) =37.077, <i>p</i> =0.000		

Remarks: Dependent Variable=PP

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

**Figure 2: Interaction between Self-efficacy and Self-identity on Proactive Personality**

Similarly, Table 5 shows that the model predicting PP is significant ($R^2 = 0.339$; $F(8,363) = 23.244$, $p = 0.000$). Outcome expectancy has a positive main effect on PP ($B = 0.371$, $t = 7.749$, $p = 0.000$; $\beta = 0.364$), and SI remains positively associated with PP ($B = 0.285$, $t = 5.880$, $p = 0.000$; $\beta = 0.272$). The OE×SI interaction is also positive and significant ($B = 0.197$, $t = 4.303$, $p = 0.000$; $\beta = 0.196$), demonstrating that SI amplifies the effect of OE on PP. Figure 3 corroborates this interaction: the OE→PP relationship is stronger when SI is high and attenuated when SI is low.

Table 5: Parameter Estimates in H6 (n=372)

	<i>B</i>	S.E.	<i>t</i>	<i>p</i>	β
Constant	5.946	0.408	14.569	0.000***	-
OE	0.371	0.048	7.749	0.000***	0.364
SI	0.285	0.049	5.88	0.000***	0.272
OE*SI	0.197	0.046	4.303	0.000***	0.196
<i>R</i> ²			0.339		
Adj. <i>R</i> ²			0.324		
<i>F</i>		<i>F</i> (8,363) =23.244, <i>p</i> =0.000			

Remarks: Dependent Variable=PP

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

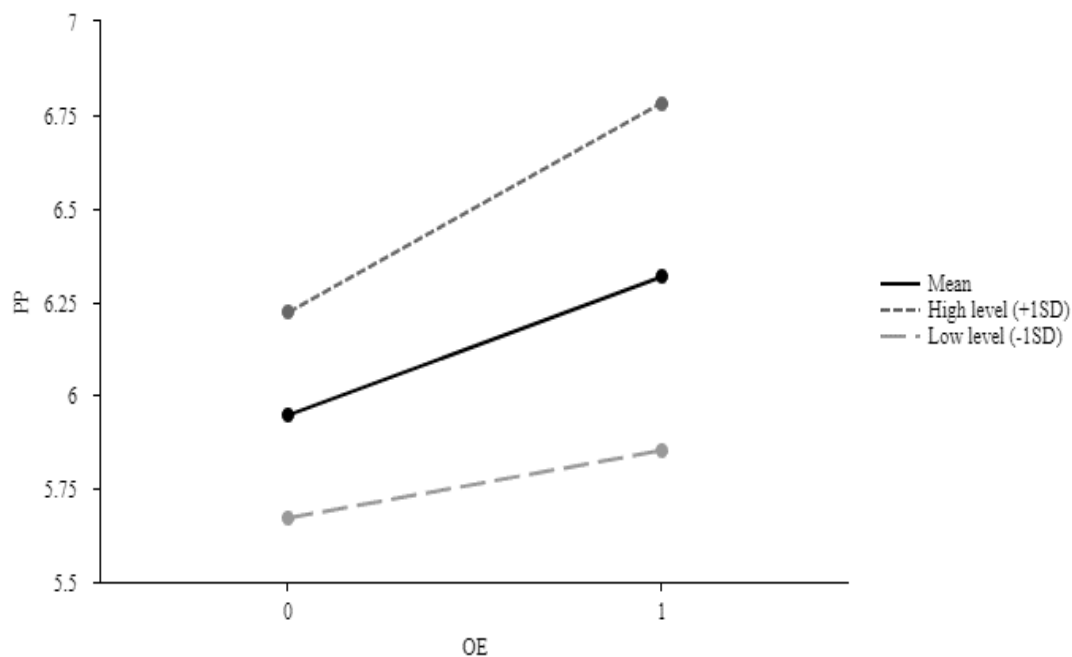


Figure 3: Interaction between Outcome Expectancy and Self-identity on Proactive Personality

In H3, the SE×SI interaction is significant and positive ($B = 0.132$, $t = 3.575$, $p = 0.000$; Table 4), and Figure 2 shows a stronger SE→PP slope at higher SI.

In H4, the OE×SI interaction is significant and positive ($B = 0.197$, $t = 4.303$, $p = 0.000$; Table 5), and Figure 3 indicates that higher SI strengthens the OE→PP association.

4.3 The Mediating Effect of Proactive Personality

To examine whether proactive personality (PP) functions as a psychological mechanism linking SCT cognitions to behavioral intention (BI), we conducted bootstrap mediation analyses using PROCESS Model 4 (2,000 resamples; 95% bootstrap confidence intervals). As summarized in Table 6, mediation was evaluated by estimating the indirect effect ($a \times b$), where path a represents the effect of the independent variable (SE or OE) on PP, and

path b represents the effect of PP on BI. Mediation is supported when the 95 percent bootstrap CI for the indirect effect does not include zero.

Results indicate that SE positively predicts PP ($a = 0.465$, 95% CI [0.375, 0.556]) and PP positively predicts BI ($b = 0.316$, 95% CI [0.202, 0.430]). The indirect effect of SE on BI via PP is significant ($a \times b = 0.147$, SE = 0.044, 95% CI [0.047, 0.213]). Importantly, the direct effect of SE on BI remains significant when PP is included ($c' = 0.212$, SE = 0.058, 95% CI [0.098, 0.326]), indicating partial mediation. Consistent with this, the indirect pathway accounts for 40.95 percent of the total effect of SE on BI.

Similarly, OE positively predicts PP ($a = 0.227$, 95% CI [0.130, 0.323]), and PP remains a significant predictor of BI ($b = 0.316$, 95% CI [0.202, 0.430]). The indirect effect of OE on BI via PP is significant ($a \times b = 0.072$, SE = 0.023, 95% CI [0.018, 0.109]). The direct effect of OE on BI is also significant with PP in the model ($c' = 0.399$, SE = 0.056, 95% CI [0.289, 0.510]), again supporting partial mediation. In this pathway, the mediated proportion is 15.29 percent, suggesting that OE influences BI both through PP and through additional direct routes.

In H5, the indirect effect for $SE \rightarrow PP \rightarrow BI$ is significant (0.147, 95% CI [0.047, 0.213]), and the direct effect remains significant ($c' = 0.212$, 95% CI [0.098, 0.326]), indicating partial mediation.

In H6, the indirect effect for $OE \rightarrow PP \rightarrow BI$ is significant (0.072, 95% CI [0.018, 0.109]), with a significant remaining direct effect ($c' = 0.399$, 95% CI [0.289, 0.510]), also indicating partial mediation.

Table 6: Mediation Effect Test

Component	Symbol	Meaning	Effect	95% CI		SE	Conclusion
				Lower	Upper		
SE=>PP=>BI	a*b	Indirect effect	0.147	0.047	0.213	0.044	Partial mediation
SE=>PP	a	X=>M	0.465	0.375	0.556	0.046	
PP=>BI	b	M=>Y	0.316	0.202	0.43	0.058	
SE=>BI	c'	Direct effect	0.212	0.098	0.326	0.058	
SE=>BI	c	Total effect	0.359	0.255	0.463	0.053	
OE=>PP=>BI	a*b	Indirect effect	0.072	0.018	0.109	0.023	Partial mediation
OE=>PP	a	X=>M	0.227	0.13	0.323	0.049	
PP=>BI	b	M=>Y	0.316	0.202	0.43	0.058	
OE=>BI	c'	Direct effect	0.399	0.289	0.51	0.056	
OE=>BI	c	Total effect	0.471	0.36	0.582	0.057	

5. Discussion

This study sought to use SCT to examine accounting students' intentions to register for CSR courses and to further investigate the role of self-identity in these associations. The results showed that self-identity strengthened the explanatory power of SCT. As an important factor in the SCT framework, self-identity significantly influenced the links among self-efficacy, outcome expectancy, proactive personality, and behavioral intentions.

5.1 Theoretical Contributions

This research extends social cognitive theory (SCT) to explain accounting students' intentions to enroll in CSR courses, demonstrating that SCT predictors jointly explain substantial variance in enrollment intention (Bandura, 2001; Pajares, 2002). The study advances theory in three ways. First, it broadens SCT's application beyond commonly studied majors to accounting education, strengthening SCT's cross-disciplinary generalizability (Bishop & Bieschke, 1998; Lent et al., 2008; Navarro et al., 2019; Sudhana et al., 2020). Second, it theorizes and empirically supports proactive personality as a mechanism translating self-efficacy and outcome expectancy into behavioral intention, clarifying how SCT beliefs shape course-enrollment decisions. Third, it incorporates self-identity as a boundary condition that strengthens the proactivity pathway. These beliefs are more likely to translate into proactive tendencies when CSR-relevant identity is salient (Berzonsky & Kinney, 2019; Yu et al., 2021).

The results diverge from prior findings on the relative roles of self-efficacy and outcome expectancy (Bandura, 1997; Lin et al., 2014; Wu et al., 2020). This suggests that, in CSR course contexts, expected outcomes may be especially consequential because students must anticipate tangible career and value-based returns from CSR learning. This discrepancy invites future work to examine when outcome expectancy becomes more central than SCT traditionally assumes (Bandura, 1997).

5.2 Practical Implications for Accounting Education

The findings offer practical guidance for curriculum design and student development. Because self-efficacy and outcome expectancy predict proactive personality and intention, accounting programs can enhance enrollment intentions by strengthening capability beliefs and perceived returns. To build CSR learning self-efficacy, instructors can use mastery experiences, formative feedback, and low-stakes practice with increasing complexity, consistent with SCT mechanisms (Bandura, 1997, 2001). To enhance outcome expectancy, programs should clarify CSR benefits through career signaling, alumni examples, and authentic tasks demonstrating real-world relevance.

The moderation results indicate that interventions are more effective when they cultivate self-identity. Programs can incorporate reflective writing on "what kind of accounting professional I want to be," CSR role-model narratives, mentorship, and co-curricular CSR projects that help students view themselves as responsible professionals. Stronger self-identity amplifies the translation of self-efficacy and outcome expectancy into proactive personality, accelerating enrollment intention (Berzonsky & Kinney, 2019; Yu et al., 2021).

Given that CSR courses remain uncommon, administrators should adopt a staged approach: (1) integrate CSR modules into core accounting courses, (2) offer stand-alone CSR electives with clear outcomes, and (3) develop advanced CSR tracks. CSR courses may be best positioned in the sixth or seventh semester, when students have sufficient foundations and are forming career identities.

5.3 Policy Implications for Higher Education in Emerging Economies

At a system level, uneven CSR course provision across institutions implies access and capacity issues. For higher education systems in emerging economies, the results support policies that reduce curriculum disparities and strengthen institutional capability to deliver CSR education. Policymakers and university leaders can encourage the diffusion of CSR education by incentivizing curriculum development, funding faculty training, and supporting inter-university teaching collaborations that share syllabi, cases, and assessment resources.

Because identity strengthens the pathway from beliefs to proactivity, policy efforts should move beyond course availability toward student developmental ecosystems. This includes support for mentorship programs, community-engaged learning, and partnerships with firms and professional bodies that provide credible signals about the value of CSR competence. Finally, evaluation frameworks should track not only course offerings but also student engagement indicators, enabling institutions to improve CSR education in ways consistent with SCT's focus on belief formation and behavioral intention (Bandura, 2001; Pajares, 2002).

6. Conclusion

Drawing on social cognitive theory, this research explains how accounting students' cognitive beliefs translate into intentions to register for CSR courses by identifying proactive personality as a motivational mechanism and self-identity as a boundary condition. By integrating these elements, the study clarifies not only whether self-efficacy and outcome expectancy matter, but how they shape intentions through proactive tendencies and when these effects are strengthened by identity salience.

The findings extend SCT to accounting education and offer evidence-based implications for designing CSR curricula that enhance students' confidence, perceived returns, and professional identity alignment. The novelty of this study lies in developing and testing an identity-focused SCT model of CSR course enrollment intention among accounting students in China. Proactive personality mediates the relationship between SCT cognitions and intention, while self-identity moderates the link between cognitions and proactive personality.

The results support an agentic explanation of CSR course enrollment. Students who expect meaningful outcomes feel more capable, and these cognitions foster stronger proactive dispositions. A strong CSR-relevant self-identity further strengthens this process, increasing behavioral intention. This mechanism-based explanation is theoretically parsimonious and practically actionable, providing a

foundation for improving CSR education in accounting programs in emerging economies.

7. Limitations and Implication

This study has several limitations that suggest important theoretical and methodological implications. First, generalizability is limited because the sample was drawn from Hebei Province. Future research should use multi-site sampling across provinces with stratified designs to capture variation in institutional type and regional CSR education contexts. Second, demographic heterogeneity was not modeled. Prior work indicates that gender roles influence self-identity development (Bussey & Bandura, 1999), that self-efficacy mechanisms vary by gender (Zimmerman, 2000), and that age may condition self-efficacy processes in young adults (Chyung, 2007). Future studies should include gender and age as control or grouping variables, supported by measurement invariance testing before multi-group comparisons.

Theoretically, this study focused on SCT because it offers an agentic account linking cognitive beliefs (self-efficacy, outcome expectancy) to intention while specifying a mechanism (proactive personality) and a boundary condition (self-identity) within a coherent framework (Bandura, 2001). However, reliance on a single framework limits conclusions about relative explanatory power. Future research should adopt comparative designs testing SCT against established intention models such as the theory of planned behavior (Ajzen, 1991) or learning adoption frameworks (Davis, 1989; Venkatesh et al., 2003). Researchers can estimate competing models using SEM, compare fit indices and information criteria, examine incremental variance explained, and assess whether identity effects remain robust across frameworks.

Methodologically, the study used a single-time, self-report design, limiting causal inference. Future research should employ time-lagged or longitudinal designs and examine whether effects vary by levels of self-identity. These extensions would strengthen causal interpretation and clarify whether the observed mediation and moderation patterns persist across time and contexts.

8. Author Contributions

Conflicts of Interest: The authors declare no financial, commercial, institutional, or personal conflicts of interest that could have influenced the design, conduct, analysis, or reporting of this study. Xiaoxiao Jia: Methodology; Software; Writing – Original Draft. Haslinah Muhamad: Conceptualization; Writing – Review & Editing. Tze San Ong: Data Curation; Visualization. Zaidi Bin Mat Daud: Validation; Supervision. Humei Zhang: Methodology; Resources. Hong Guo: Investigation; Project Administration.

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