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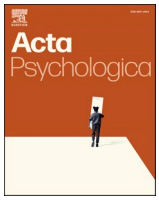

Social media facilitated learning and parents' purchase intentions of non-academic tutoring services for children

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ABSTRACT

Chinese parents have increasingly invested in children's non-academic development, which forms new consumer markets. This study draws on social learning theory and the supplementary tutoring literature to examine whether and how three outcomes of social media facilitated social learning (i.e., observed perfectionism, observed parent image, and trust in peer word of mouth) influence parents' purchase intentions of non-academic supplementary tutoring services for their children. Results based on the multiple regression analyses of 398 parents' responses from 15 non-academic supplementary tutoring agencies confirmed eight of ten hypotheses in our conceptual framework. The findings shed light on parents' conformity and comparison mechanisms during social media-facilitated social learning, with theoretical implications to research regarding social learning, perfectionism, word of mouth, vulnerability, trust transfer, and practical implications about social media-facilitated learning regarding parent image, parents' anxiety about children's development and the impact of educational policy on the supplementary tutoring market.

1. Introduction

Consumers develop their thoughts, feelings, and attitudes toward specific products and or services by observing and imitating those of others, a process known as social learning (Hill et al., 2009a, 2009b). In today's digital age, these 'others' could include not only consumers' immediate acquaintances and peers but also the social media platforms, which have become integral to millions of users' daily lives (Chen et al., 2017; Scholz, 2021). Indeed, social media platforms have facilitated the formation of atypical social learning, where the attitudes and behaviors of peers become models for imitation (Samantray & Riccaboni, 2020). Through these platforms, consumers can observe others' experiences of consumption, interact with peers, and access relevant product information that shapes their purchase decisions.

Consumer purchase decisions in social media contexts can be interpreted through the social learning theory. First, this theory explains how individuals learn through both direct observation and mediated channels such as social media (Lorenzo et al., 2012). Second, it recognizes that learning involves both cognitive processes (knowledge acquisition) and affective processes (emotional responses), which interprets how consumers process information on social media (Illeris, 2003). Third, it addresses how social interactions and peer influence shape behavior, making this theory particularly relevant for understanding social media's impact on consumer decisions.

This influence of consumer social learning has been extensively investigated in various consumption decisions (Zheng et al., 2018). For instance, the learned deprivation of objective indicators of success from social media can lead consumers to spend substantially on conspicuous services (Bronner & de Hoog, 2018). This effect is particularly evident in China's evolving consumer market, where middle-class consumers have shifted from material consumption (e.g., luxury purses) to nonmaterial consumption (club membership and educational institutions) to exhibit distinctiveness from the crowd (Li et al., 2020).

A particular case of such nonmaterial consumption is Chinese parents' investment in children's non-academic development. As China's family structure evolved from extended families to core families (i.e., couples and their single child under the one-child policy), children's status as symbols of family identity and social mobility intensified (Lin, 2019). Many Chinese parents now consider education as an essential means of social mobility; they invest generously in children's education to help them address social competition (Hong & Liu, 2021). This shift, rooted in social learning processes where parents observe and

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internalize societal norms through peer interactions and media exposure (Bandura & Walters, 1977; Hill et al., 2009a, 2009b), has catalyzed new consumer markets such as the children's education sector (Wang & Cheng, 2021), which is now valued at over RMB 2 trillion (US$ 288billion) (Piat, 2022).

To address such evolving demands, private tutoring businesses have increasingly diversified into out-of-school educational services, including both academic and non-academic subjects (Bray, 2013). Parents, influenced by social media narratives about idealized educational outcomes (e.g., peer comparisons and success stories), increasingly adopt supplementary services to emulate perceived "successful" parenting strategies and ensure their children's competitive edge (Lin, 2019). However, the traditional focus on children's academic achievement has raised increasing concerns about their mental and physical health (Li et al., 2022). Zhang and Liu (2025) have associated intensive tutoring to increased depression and sleep among adolescents.

In response, policymakers have encouraged parents to prioritize non-academic development, guiding tutoring agencies to provide non-academic services. This transition reflects how institutional and individual behaviors adapt to socially reinforced norms as social learning theory posits (Lorenzo et al., 2012). For instance, as parents observe peer recommendations and expert advice on social media, their trust in non-academic services grows; this further drives market shifts. Yet, it remains unclear how parents reconcile these recommendations with their own social learning processes, particularly when investing in services that represent both their children's development and their own identity as parents (Hughes et al., 2015).

To address the above-mentioned gaps, we aim to examine the mechanisms through which social media facilitates parents' social learning and influences their purchase intentions for children's non-academic tutoring services. Unlike previous studies focusing on consumers' social media-facilitated purchase intentions for products related to themselves (Chopdar et al., 2018; Hua & Haughton, 2009), we investigate parents' investment decisions that affect their children—who can be viewed as parents' extended selves. This distinction is crucial, as children can be viewed as parents' extended selves, used to develop and maintain their own identities (Hughes et al., 2015). Drawing on social learning theory, we identify two key mechanisms: conformity (observed perfectionism) and comparison (peers' word of mouth). Specifically, we investigate how three key outcomes of social media-facilitated learning (i.e., observed perfectionism, observed parent image, and trust in peer word of mouth) affect parents' decision-making processes. By doing so, we seek to understand both the direct effects of these factors and their mediated relationships through perceived child educational vulnerability and trust transfer mechanisms.

This study makes several theoretical contributions. First, we extend the social learning theory by identifying how parents' conformity and comparison mechanisms influence their nonmaterial consumption decisions for their children. This extends existing research linking social learning to consumers' motivation to reduce their feelings of deprivation (Gurzki & Woisetschläger, 2017; Zheng et al., 2018) and answers the call to explore whether children are parents' extended selves (Hughes et al., 2014).

Second, we examine how parents develop perceptions (children's educational vulnerability and transfer of trust) from social media-facilitated learning, which influences their purchase intentions. This reveals how social media-facilitated social learning affects parents' decisions about tutoring services for their children rather than themselves. These insights advance our understanding of social media's role in parental decision-making and the evolving landscape of non-academic supplementary education in China.

In Section 2, we review the literature on social media-facilitated parent social learning, perfectionism, parent image, peer word of mouth, perceived child educational vulnerability, trust transfer, and facilitating conditions, together with hypotheses linking these variables. Section 3 provides the research design, methods, and construct measurements, followed by a results presentation. Section 5 presents the theoretical implications, practical implications, limitations and future research directions, with Section 6 concluding this study.

2. Theoretical background and hypotheses

2.1. Social learning among parents

Social learning theory provides a valuable framework to interpret parents' decision-making regarding non-academic tutoring services for their children. According to this theory, individuals learn by observing and interacting with others, developing insights about which behaviors to avoid and which to imitate (Bandura & Walters, 1977; Bosmans et al., 2020a, 2020b). Social learning theory, traditionally focused on direct observational learning and modeling, has evolved significantly in the digital age. While the framework of Bandura and Walters (1977) emphasized physical proximity for learning, social media platforms have fundamentally transformed these learning mechanisms. In digital environments, learning occurs through complex interactions of content consumption, peer feedback, and virtual community engagement, creating digitally mediated social learning.

In the context of social media, this learning process is facilitated through multidimensional network structures and interactive features that enable both passive observation and active information-seeking (Pang & Yang, 2024). Social learning theory helps explain how parents develop cognitive appraisals and emotional attachments through social media interactions (Pang & Zhang, 2024a). Previous consumer studies on social learning have primarily focused on its impacts on consumer intentions to reduce perceived gaps between themselves and peers (Gurzki & Woisetschläger, 2017; Zheng et al., 2018). However, not much has been written about how social learning influences parents' purchase decisions for services on behalf of their children. Addressing this research gap is important: in the unique environments of social media platforms, we aim to unravel how the various educational stimuli and peer experiences that shape parents' decision-making processes (Pang & Ruan, 2024).

For Chinese parents, social media platforms such as WeChat provide a unique context for social learning about children's education and development. Parents are exposed to diverse information sources, such as other parents' posts, discussions in parent committee online chats, and teachers' praises/criticisms of specific parents' care over children's studies. These social interactions create essential stimuli for parents to avoid perceived failures (e.g., ignorant of children's misbehavior at school and poor drawings) and earn social approval (e.g., children's stunts/talents during public events and creative works at school). The interactivity features of social media platforms, including both social and system interactivity, facilitate the learning process by enabling real-time communication and information exchange (Pang & Zhang, 2024a). Recent research has shown that such social connectivity can significantly influence parents' perceived benefits and satisfaction with tutoring services. This evaluation further influences parents' purchase decisions. However, studies on the impact of social learning on anxiety has focused on students, with limited insights on how socially learned information influences parents' attitudes and decision-making regarding supplementary tutoring services.

Parents have increasingly gathered information and learned from peers about educational choices for their children through social media platforms (Pang & Yang, 2024). These platforms allow parents to observe others' parenting activities, share experiences, and form perceptions about tutoring service quality. In other words, social media engagement can significantly influence parents' purchase decisions (Pang, 2024). The following subsections discuss the impacts of these stimuli and propose our hypotheses.

2.2. Observed perfectionism

Perfectionism refers to an individual's tendency to set very high standards for himself (or her)self, and engage in overly critical self-evaluations and negative evaluations of his(her) behavior present through excessive concern for mistakes, his(her) beliefs and actions (Frost et al., 1990; Stoeber & Otto, 2006). Perfectionism studies have traditionally examined how parents pass their high standards onto their children, helping children to imitate and internalize their parent's model behaviors (Flett et al., 2002). However, we propose that perfectionism can also spread among parents through social media-facilitated mechanisms, influenced by both network structures and psychological factors.

In the context of this study, we introduce the concept of 'observed perfectionism,' which we define as parents' observation of their peer's intentions to set extremely high standards for their children and the manifested behavior through excessive worries about their children's mistakes and performance. This construct captures the social learning aspect of perfectionism, extending beyond traditional parent-child transmission to peer-to-peer influences. Recent research on mobile social media has shown that both social interactivity (peer-to-peer communication) and system interactivity (platform features) significantly influence users' perceived benefits and satisfaction (Pang & Ruan, 2024). These interactive features create an environment where perfectionist attitudes are observed and acquired.

Through social media platforms serve as channels where parents observe and learn from others who display perfectionist tendencies in their tutoring service choices and parenting practices. Such social learning can shape parents' perceptions about educational standards and influence their decisions about supplementary tutoring services. Recent studies have highlighted how exposure to perfectionist content on social media platforms can impact consumers' purchase decisions (Gull et al., 2023). We further argue that observed perfectionism shapes parents' perceptions of their children's educational needs.

Perfectionism can generate both positive and negative outcomes. According to Simon (2021), perfectionists may experience anxiety when fearing failure. When it comes to parents with perfectionism, they may demonstrate harsh, punitive, abusive, and anxious forms of parenting (Flett et al., 2002). However, social media-facilitated social learning can also provide corrective feedback through service quality evaluations and peer recommendations (Pang & Zhang, 2024b). The cumulative satisfaction derived from social media interactions can influence how parents process and act upon perfectionist standards.

Through these complex interactions of network effects, psychological factors, and platform features, parents can develop perfectionism through social media-facilitated learning. The exposure to perfectionist attitudes and behaviors drives parents to develop their own perfectionist tendencies regarding children's development.

2.3. Observed parent image

Social media has fundamentally transformed how parents observe and evaluate parenting practices by providing unprecedented access to other parents' experiences, behaviors, and achievements. WeChat, a major social media platform in China, allows users to instantly engage with other users' sharing (Pang & Zhang, 2024a). Through such platforms, parents can observe and compare themselves with those who display what appears to be successful parenting practices or superior educational investments. This visibility has intensified social comparison processes, particularly regarding children's educational achievements and development. Parents frequently encounter and evaluate content from those who have achieved notable success or superior reputations in parenting, influencing their own parenting decisions and standards (Gerson et al., 2016; Rheu et al., 2023).

Live streaming lectures, expert advice columns, and peer-generated content have become valuable sources of information for parents seeking to emulate "successful" parenting practices (Falco & Kleinhans, 2018; Zhang, Xu, & Ye, 2022). We define observed parent image as the perceived ways in which other parents educate and rear their children, including their investments in children's daily lives and education. This concept is embedded in the various benefits that parents derive from social media platforms. Recent research has identified that these benefits include functional benefits (information acquisition), psychosocial benefits (social status and recognition), and hedonic benefits (emotional satisfaction) (Pang & Zhang, 2024b). The interaction of these benefits shapes how parents perceive and internalize idealized parenting images.

Through social media platforms, parents are exposed to a range of "dos" and "don'ts" regarding child education and development. Over time, these observed practices may coalesce into a set of perceived norms that shape the expected parent image. This idealized image can serve as a powerful motivator for parents to invest more time, energy, and financial resources into their children's all-round development.

2.4. Trust in peer word of mouth

According to Mayer et al. (1995), trust refers to an individual's intention to be vulnerable to the actions of another individual, assuming that the latter will perform a particular action important to the trustor, regardless of the monitor or control of that latter individual. In this study, we define 'trust in peer word of mouth' as parents' trust in other parents' online comments and evaluations of specific non-academic complementary tutoring services.

In social media settings, consumers could read rich feedback from service reviewers and rely on signals about their reputation and expertise to assess their trustworthiness and helpfulness (Liu & Park, 2015; Onofrei et al., 2022). Such assessment is enabled the interactive function of social media platforms, where users can interact with engage with diverse individuals bearing common interests and experiences (Pang & Yang, 2024). On social media platforms such as WeChat, users' attachment to the platform can influence their word of mouth activities (Pang & Zhang, 2024b). As such, parents can communicate with service reviewers (i.e., other parents) in a real-time, interactive manner. The ability to engage in real-time communication enables parents to verify information and build relationships with information providers, while network heterogeneity exposes parents to diverse perspectives that can enhance information credibility (Pang & Yang, 2024).

In other words, social media-facilitated communications among parents provide more transparent information, with parents developing closer relationships and a higher degree of trust in the word-of-mouth spread by other parents regarding the quality and suitability of children's education. As parents engage in these communities, they may view other parents' experiences and opinions as valuable and reliable sources of information regarding the quality and suitability of tutoring services for their children.

2.5. Perceived child educational vulnerability

Drawing on Forsyth et al. (1996), we define 'perceived child educational vulnerability' as a parent's belief that his(her) child is weak and susceptible to inferior achievement in academic and non-academic competitions after learning about other children's achievements from their parents. Unlike real child vulnerability, the perceived child educational vulnerability is developed through parents' social learning via social media in several ways.

First, when parents observe peers' excessive expectations of their children, they may develop the idea that their children are weak in competition with other children. When observing perfectionistic standards in children's development, parents may realize that good living habits and non-academic talents (e.g., sports and music) are equally important to academic achievements (e.g., high grades), thus worrying that their children are falling behind other children who are educated by perfectionistic parents.

Second, the reviews and experiences available on social media may push parents to comply with the 'norms' of other parents (i.e., expected parent image) regarding their children's education. When following those norms, parents may realize the missing parts in the ways and attitudes that they educate their children; i.e., they fail to live up to the standard parent image. As a result, some parents may worry that, because of their missing efforts, their children become inferior in competition with those children educated by 'model parents.'

Third, parents' worry about their children's educational vulnerability could increase along with their trust in the perfectionistic norms and images suggested on social media. The relationship between trust in peer word of mouth and perceived child educational vulnerability represents a complex psychological mechanism in digital social learning environments. While traditional word-of-mouth literature suggests that trusted information sources influence risk perception (Zhang, Sun, et al., 2022; Zhang, Xu, & Ye, 2022), the parent-child educational context presents unique dynamics. Parents processing peer recommendations about educational services must filter this information through multiple lenses: their trust in the information source, their assessment of their own children's needs, and their understanding of the educational landscape.

Parents may compartmentalize their trust in peer information (McKnight et al., 2002) from their assessment of their children's vulnerability. This separation occurs because vulnerability perception in educational contexts is deeply personal and often rooted in direct observations of children rather than peer influences. While parents may rely on professional expertise or personal assessment when evaluating their children's educational vulnerability, we propose that higher trust in peer word of mouth positively relates to perceived child educational vulnerability. According to Rheu et al. (2023), when parents trust peer information about educational services, they are more likely to use this information as a benchmark for evaluating their own child's educational position and potential vulnerabilities.

Finally, peers' positive reviews and detailed descriptions of their children's non-academic supplementary tutoring services may constitute the word-of-mouth that raises parent awareness (after communications), thereby influencing their purchase intentions. Given the above discussion, the following hypotheses can be proposed:

H1. Observed perfectionism is positively related to perceived child educational vulnerability.

H2. Observed parent image is positively related to perceived child educational vulnerability.

H3. Trust in peer word of mouth is positively related to perceived child educational vulnerability.

H4. Perceived child educational vulnerability is positively related to parents' purchase intentions of non-academic supplementary tutoring services for children.

2.6. Trust transfer

Drawing on previous studies (Leung et al., 2022; Stewart, 2003), we define 'trust transfer' as a parent's transfer of trust from social media-facilitated word-of-mouth delivered by his(her) peers to specific non-academic supplementary tutoring services. According to McKnight et al. (2002), consumers' personality-based trust could transfer, i.e., through the children's education experience accumulation as a parent; and the interactions with individuals with similar features (i.e., peer parents) or bear specific knowledge/expertise on the concerned area (i.e., children' all-round development). Recent research suggests that this transfer process is significantly influenced by social media service quality and user identification with online communities (Pang & Zhang, 2024a).

The transfer of trust from observed social media behaviors to actual service providers involves sophisticated psychological mechanisms. In the case of observed perfectionism, parents who internalize the perfectionistic standards acquired from social media may develop trust transfer (Leung et al., 2022). This process occurs when parents associate the perceived success of perfectionist parenting approaches with the quality of specific educational services, leading to trust in service providers who promise to help achieve these idealized standards.

Observed parent image operates through identity-based trust transfer. When parents observe and validate certain parenting practices as ideal or successful on social media, they develop trust in services that align with these idealized parenting approaches. In other words, if a parent trusts the perfectionist attitudes toward children, and the described norms of parenting, and the reviews and comments on non-academic supplementary tutoring services on social media, (s)he is likely to comply by purchasing those services. Given the above discussion, the following hypotheses can be proposed:

H5. Observed perfectionism is positively related to trust transfer.

H6. Observed parent image is positively related to trust transfer.

H7. Trust in peer word of mouth is positively related to trust transfer.

H8. Trust transfer is positively related to parents' purchase intentions of non-academic supplementary tutoring services for children.

2.7. Facilitating conditions

Drawing on Venkatesh et al. (2012), we define 'facilitating conditions' as parents' perceptions of the conditions and resources available to perform a behavior. While consumer perceptions (i.e., subjective conditions) are essential determinants of purchasing intentions in the social media age (Filieri et al., 2018), consumers' purchasing intentions are also contingent on external conditions (i.e., objective conditions) such as proficiency, resources and policies.

Indeed, parents' proficiency in using tutoring technologies may influence their abilities to understand and process the shared information without feeling overwhelmed (Pang, 2024). In the context of this study, facilitating conditions involve the policies that recommend non-academic development, the financial resources that enable parents to afford tutoring services for their children's all-round development, the existing and learned knowledge that parents have regarding the importance of non-academic supplementary tutoring services, the facilitating technology (e.g., software) that allow children to take those services effectively. Previous studies (Datta, 2011a, 2011b) confirm that facilitating conditions could moderate the relationship between explanatory factors and consumers' behavioral intention in different contexts of adoption of technology-facilitated services and purchases.

For vulnerability-based decisions, facilitating conditions act as enablers that help parents address perceived educational vulnerabilities. Indeed, parents' ability to act on perceived vulnerabilities is enhanced when they have adequate resources and support systems. The psychological mechanism is a resource-enabled response capability where facilitating conditions strengthen the link between perceived vulnerability and intended behavior.

In contrast, the moderation of trust-based decisions involves the interaction between trust transfer and enabling conditions. We propose that facilitating conditions can either reinforce or substitute for trust-based decision-making. In the Chinese educational context, policy support and resource availability may influence trust-based considerations in parents' decision-making processes. Therefore, we propose the following hypotheses:

H9. Facilitating conditions positively moderate the relationship between perceived child educational vulnerability and purchase intentions.

H10. Facilitating conditions positively moderate the relationship between trust transfer and purchase intentions.

Fig. 1 summarizes the conceptual frameworks to predict hypotheses H1–H10.

3. Research methods

3.1. Sampling procedure

Our sampling strategy targeted parents engaged with non-academic supplementary tutoring services in Chongqing, China. We collaborated with the association of non-academic supplementary tutoring agencies representing 150 member agencies specialized in dancing, music, and arts training. We randomly selected 15 agencies from the association membership and gained access to their parent WeChat groups through agency managers. These groups included 1593 parents in total. The selection of 15 tutoring agencies was based on a systematic stratified sampling approach designed to ensure a comprehensive representation of China's non-academic tutoring sector. These agencies were selected using three criteria: (1) market presence (operating as 5 large-scale national chains, 5 medium-sized regional providers, and five specialized local institutions), (2) service diversity (covering various non-academic domains, including arts, sports, and personal development), and (3) operational history (minimum 3 years of establishment to ensure service stability and parent community development). This effort ensures that our sample captures the heterogeneity of China's tutoring landscape while maintaining a focus on established providers with substantial parent engagement.

After introducing our research project in each WeChat group, we distributed an online questionnaire (see Appendix 1). focusing on parents' social media-based social learning experiences regarding their children's non-academic supplementary tutoring services. From 401 completed questionnaires, 398 were deemed valid for analysis. The demographic characteristics of respondents are presented in Table 1.

3.2. Measurement scales

Our measurement instrument incorporated validated scales from existing literature (1 = strongly disagree; 5 = strongly agree), modified to align with our research context.

Observed perfectionism (OP) was measured by adapting the 8-item scale from Simon (2021). An example item is 'My friends think that if their child(ren) fail(s) in study, they are a failure as parents.' The

Table 1
Demographic information.

Items	Category	*N*	%
Gender	Male	45	11.3
	Female	353	88.7
Age	20–30	22	5.5
	31–40	175	43.9
	41–50	166	41.7
	51 and above	35	8.9
Education	High school and below	63	15.8
	College	94	23.7
	Undergraduate	187	47.0
	Postgraduate	54	13.5
Occupation	Non-white collar	148	37.2
	White collar	250	62.8
Annual spending on children's supplementary tutoring services (US$)	Less than $1000	91	22.8
	$1001–$3000	231	58.1
	$3001 and above	76	19.1

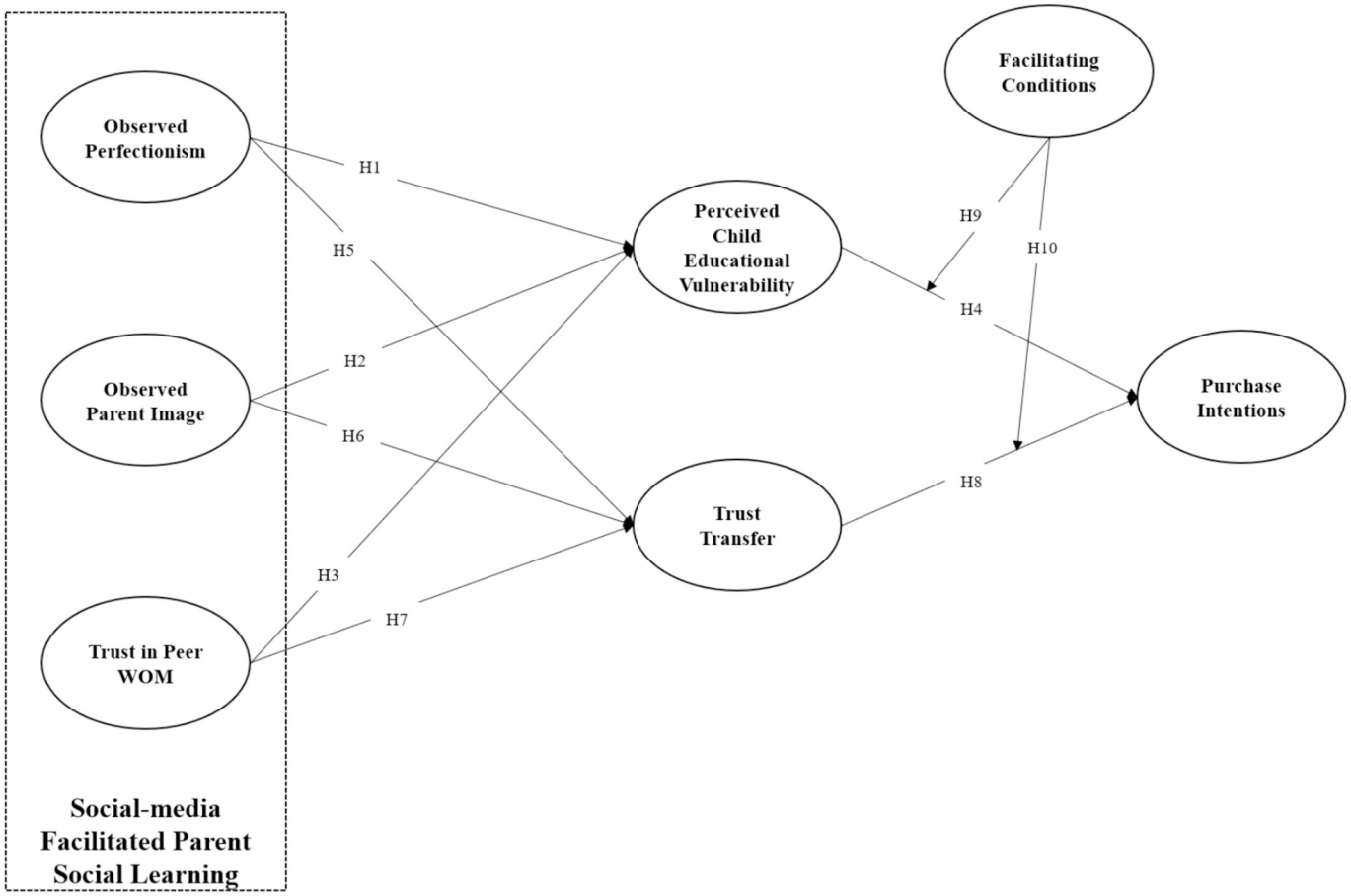

Fig. 1. Conceptual framework of the study.

Cronbach's alpha of this construct was 0.95.

Observed parent image (OPI) was measured by adapting the 3-item scale developed by Zhang, Xu, and Ye (2022). An example item is 'Successful parents can impress others through investment in the child (ren)'s non-academic supplementary tutoring services.' The Cronbach's alpha of this construct was 0.86.

Trust in peer word of mouth (PWOM) was measured by adapting the 4-item scale developed by Onofrei et al. (2022). An example item is 'The people in my network who post about non-academic supplementary tutoring services are experienced in the area to offer advice.' The Cronbach's alpha of this construct was 0.92.

Perceived child educational vulnerability (PCEV) was measured by adapting the 9-item scale developed by Forsyth et al. (1996). An example item is 'In general, my child(ren) seem(s) less mentally developed than other children.' The Cronbach's alpha of this construct was 0.95.

Trust transfer (TT) was measured by adapting the 3-item scale developed by Leung et al. (2022). An example item is 'I can count on this trainer/tutor.' The Cronbach's alpha of this construct was 0.86.

Facilitating conditions (FC) were measured by adapting the 3-item scale developed by Dakduk et al. (2020). An example item is 'The education policy encourages me to invest in children's non-academic supplementary development.' The Cronbach's alpha of this construct was 0.92.

Purchasing intention (PI) was measured by adapting the 3-item scale developed by Onofrei et al. (2022). An example item is 'Given a chance, I would consider purchasing the product/service depicted in the post shared by people in my social media network in the near future.' The Cronbach's alpha of this construct was 0.89.

4. Results

We converted the survey data into IBM SPSS Statistics 25 to examine outliers, missing values, normality, and multicollinearity. We conducted descriptive analysis and confirmatory factor analysis (CFA) to examine convergent validities (Anderson & Gerbing, 1988) before examining the values of chi-square (χ2), Comparative Fit Index (CFI), Tucker-Lewis index (TLI), Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residual (SRMR) to assess model fit. We used Mplus 8.0 to examine the CFA and test all the hypotheses. These methods were chosen for several considerations. First, the complexity of our theoretical model, which includes both direct and indirect effects, necessitates an analytical approach capable of simultaneously testing multiple pathways. Second, the continuous nature of our variables and the assumed linear relationships between constructs make regression-based analyses appropriate.

4.1. Common method bias

We conducted Harman's single-factor test to check the possible issue of common method bias. The analysis returned seven factors with eigenvalues greater than 1, with the first factor loading (34.91 % of 75.52 %) accounting for the threshold value of 40 % of the variance (Podsakoff et al., 2003). Therefore, the findings provided no serious indications of common method variance.

4.2. Validity and reliability

We conducted a confirmatory factor analysis (CFA) to examine the composite reliability and convergent validity. According to Table 2, the measurement model has a good model fit ($\chi^2 = 864.862$, df = 608, CFI = 0.98, TLI = 0.98, RMSEA = 0.03, SRMR = 0.03). Convergent validity was ensured with composite reliability (CR) above 0.8 and AVEs over 0.5 (Fornell & Larcker, 1981). According to Table 3, all CRs are higher than the suggested threshold of 0.80, and all AVE values are higher than the suggested threshold of 0.50, indicating a good convergent validity of the measurement model. And all of the α values are over 0.7, which is acceptable in terms of reliability (Hair et al., 2010).

Table 2
Model fit.

χ^2	DF	χ2/DF	CFI	TLI	RMSEA	SRMR
864.862	608	1.422	0.98	0.98	0.03	0.03

The means, standard deviations, and correlations of all variables used in this study are provided in Table 4. In the correlation matrix supplied in Table 4, OP, OPI, and PWOM were significantly and positively correlated with PCEV and TT; PCEV and TT were significantly and positively correlated with PI, partially supporting our hypotheses.

4.3. Hypothesis testing

According to Table 4, the results of the SEM analysis suggest that observed perfectionism has a significant positive impact on perceived child educational vulnerability ($\beta = 0.27$, $p < .05$), supporting H1; observed parent image has a significant positive impact on perceived child educational vulnerability ($\beta = 0.23$, $p < .05$), supporting H2; trust in peer word of mouth has no significant impact on perceived child educational vulnerability ($\beta = 0.02$, $p > .05$), so H3 was rejected; observed perfectionism has a significant positive impact on trust transfer ($\beta = 0.16$, $p < .05$), supporting H5; observed parent image has a significant positive impact on trust transfer ($\beta = 0.17$, $p < .05$), supporting

Table 3
Results of confirmatory factor analysis & reliability.

Item	Factor loading	Cronbach's alpha	CR	AVE
OP1	0.80	0.95	0.95	0.70
OP2	0.89			
OP3	0.84			
OP4	0.84			
OP5	0.84			
OP6	0.81			
OP7	0.87			
OP8	0.82			
OPI1	0.79	0.86	0.86	0.68
OPI2	0.90			
OPI3	0.78			
PWOM1	0.89	0.92	0.92	0.75
PWOM2	0.77			
PWOM3	0.90			
PWOM4	0.89			
PCEV1	0.87	0.95	0.96	0.71
PCEV2	0.82			
PCEV3	0.90			
PCEV4	0.92			
PCEV5	0.86			
PCEV6	0.80			
PCEV7	0.86			
PCEV8	0.77			
PCEV9	0.79			
TT1	0.85	0.86	0.86	0.68
TT2	0.83			
TT3	0.79			
PI1	0.86	0.89	0.89	0.74
PI2	0.90			
PI3	0.81			
FC1	0.84	0.92	0.92	0.62
FC2	0.80			
FC3	0.79			
FC4	0.81			
FC5	0.74			
FC6	0.77			
FC7	0.78			

Note: $N = 398$. OP = observed perfectionism; OPI = observed parent image; PWOM = trust in peer word of mouth; PCEV = perceived child educational vulnerability; TT = trust transfer; PI = purchase intention; FC = facilitating conditions.

Table 4
Descriptive analysis & correlation analysis.

	Mean	Std. deviation	OP	OPI	PWOM	PCEV	TT	PI	FC
OP	3.52	1.06	1						
OPI	4.05	1.79	0.493**	1					
PWOM	3.61	0.91	0.472**	0.385**	1				
PCEV	3.75	0.96	0.407**	0.377**	0.260**	1			
TT	4.69	1.47	0.400**	0.380**	0.491**	0.331**	1		
PI	3.70	1.00	0.363**	0.313**	0.317**	0.379**	0.329**	1	
FC	3.57	0.94	0.271**	0.169**	0.140**	0.397**	0.182**	0.251**	1

Note: $N = 398$. OP = observed perfectionism; OPI = observed parent image; PWOM = trust in peer word of mouth; PCEV = perceived child educational vulnerability; TT = trust transfer; PI = purchase intention; FC = facilitating conditions.
** $p < .05$.

H6; trust in peer word of mouth has a significant positive impact on trust transfer ($\beta = 0.42$, $p < .05$), supporting H7; perceived child educational vulnerability has a significant positive impact on purchase intention ($\beta = 0.32$, $p < .05$), supporting H4; trust transfer has a significant positive impact on purchase intention ($\beta = 0.28$, $p < .05$), supporting H8.

According to Table 5, PCEV × FC has a significant positive impact on PI ($\beta = 0.29$, $p < .05$), supporting H9; TT × FC has no significant impact on PI ($\beta = -0.10$, $p > .05$), so H10 was rejected. The interaction values (PCEV × FC) were plotted and probed with a simple slope test (Aiken et al., 1991) in Fig. 2. We found that the positive relationship between PCEV and PI was stronger when FC was high. However, the positive relationship between PCEV and PI was stronger when FC was high.

5. Discussion

Previous studies have identified the influence of consumer social learning on their consumption intentions (Bronner & de Hoog, 2018; Zheng et al., 2018). In particular, social-media facilitated social learning entices consumers to compare themselves, catch up, and even surpass peers through material and nonmaterial consumption (Zheng et al., 2018). In China, observed investment in children's academic success becomes another form of nonmaterial consumption. In this case, social learning studies (e.g., Chopdar et al., 2018; Hua & Haughton, 2009) have revealed a knowledge gap regarding parents' purchasing intentions on services related to their extended selves, i.e., their children. To address this knowledge gap, this paper draws on social learning theory to examine the impacts of social media-facilitated parents' social learning on their intentions to purchase supplementary non-academic tutoring services for their children.

We developed ten hypotheses about the relations among observed perfectionism, observed parent image, trust in peer word of mouth, perceived child educational vulnerability, trust transfer, facilitating conditions, and parents' intentions to purchase supplementary non-academic tutoring services for their children. Eight of these hypotheses were supported by our empirical data.

Table 5
Direct and indirect effects.

Independent variable	Dependent variable	Std. estimate	S.E.	P
OP	PCEV	0.27	0.06	0.00
EPI		0.23	0.06	0.00
PWOM		0.02	0.06	0.76
OP	TT	0.16	0.07	0.04
EPI		0.17	0.06	0.01
PWOM		0.42	0.06	0.00
CM	PI	0.32	0.06	0.00
TT		0.28	0.05	0.00
RS		0.14	0.07	0.04
PCEV × FC		0.29	0.07	0.00
TT × FC		−0.10	0.07	0.17

Note: $N = 398$. OP = observed perfectionism; OPI = observed parent image; PWOM = trust in peer word of mouth; PCEV = perceived child educational vulnerability; TT = trust transfer; PI = purchase intention; FC = facilitating conditions.

Our results show that observed perfectionism and observed parent image significantly influence parents' perceived child educational vulnerability, which further leads to parents' purchase intention of non-academic supplementary tutoring services for their children. Moreover, the relationship between parents' perceived child educational vulnerability and their purchase intention is moderated by facilitating conditions. These findings extend former perfectionism studies (e.g., Appleton & Curran, 2016) by demonstrating how perfectionism can be learned among parents. We also extend peer comparison studies (e.g., Zheng et al., 2018) by illustrating how parents, as consumers, undertake to imitate 'model parents' by purchasing services for their children.

However, trust in peer word of mouth was not related to parents' perceived child's educational vulnerability. These findings challenge assumed relationship between trust and vulnerability perception in digital environments. To start with, parents may employ different cognitive processes when evaluating peer information and children's educational needs. Despite peer recommendations, parents may perceive children's educational vulnerability from direct observations. Moreover, the Chinese educational context, characterized by intense competition and rapid policy changes, may lead parents to rely more on objective performance metrics and professional expertise rather than peer opinions when assessing educational vulnerability. Finally, the relationship between trust and vulnerability perception might be moderated by factors not captured in our framework, such as parents' educational background or their child's current academic performance.

We also found that observed perfectionism, observed parent image, and trust in peer word of mouth significantly influence parents' trust transfer. These results contribute to the literature on the impact of word-of-mouth studies (Liu & Park, 2015; Onofrei et al., 2022) by elucidating the trust transfer mechanism where parents' trust in perfectionistic parents through social media is further transferred to non-academic tutoring course providers.

5.1. Theoretical implications

Our theoretical contributions are twofold. First, we contribute to social learning theory by considering parents as consumers of their children's non-academic supplementary tutoring services. Previous studies have adopted social learning to explain how individuals develop expectations and evaluations about themselves and their behavior (Hong et al., 2016; Warshawski, 2022; Zhou et al., 2021) in an educational setting. We argue that parents may also have relevant expectations about their parenting quality, as is represented in their children's all-round development. After evaluating the educational environment and facilitating conditions (e.g., financial resources and relevant knowledge), parents may make their purchase intentions based on social media-facilitated social learning. We extend the social learning theory by unraveling two parents' social learning mechanisms: conformity and comparison. In particular, observed perfectionism and peers' word of mouth, two social media facilitated social learning outcomes, lead to a conformity mechanism where parents feel the need to invest in their

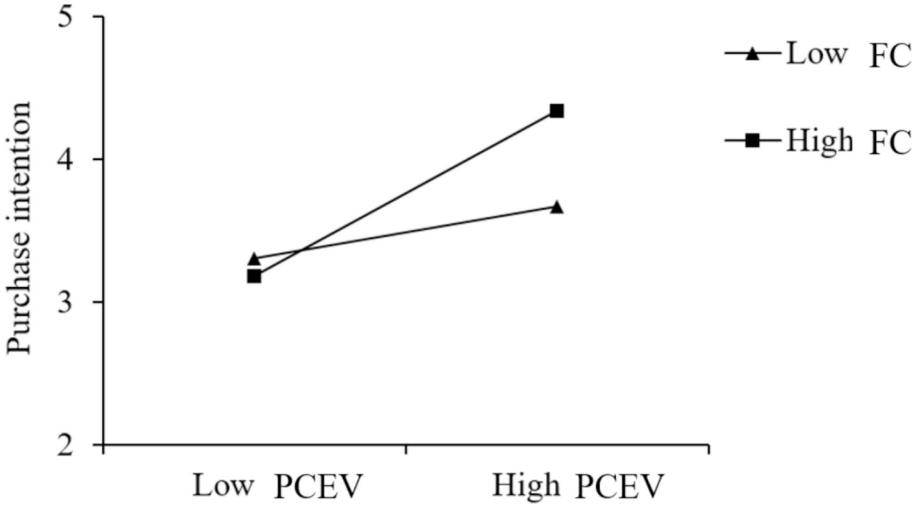

Fig. 2. The moderating role of facilitating conditions.

children's non-academic supplementary tutoring services, whereas observed parent image could lead to a comparison mechanism where parents feel the need to fill the 'reputation gap' or sense of superiority as good parents.

Second, we contribute to the literature on the relationship between social learning and consumer purchase intentions. Previous studies on social learning theory have focused on the impacts of social learning on consumer intentions to purchase products and services to reduce the perceived possession gap between themselves and their social peers (Gurzki & Woisetschläger, 2017; Zheng et al., 2018). However, parents' intentions of purchasing non-academic supplementary tutoring services are not for themselves but for their children. Our findings seem to suggest that parents' social learning through social media (e.g., expert advice, standards of good parenting, and peer recommendations) leads to parents' perception of children's educational vulnerability and transfer of trust to peer recommendations. In doing so, we demonstrate that the influence of social media-facilitated social learning will spill over to parents' purchase intentions on services that are not directly related to themselves but to their children, whose educational quality serves as indicators of good parenting, a source of social comparison.

5.2. Practical implications

Our findings also present significant implications for non-academic supplementary tutoring service agencies, parents, and educational policymakers. Managers of tutoring agencies should consider the importance of social media facilitating social learning among parents. While educational experts could be invited to suggest practices for children's educational development and develop brand image (Zhang, Xu, & Ye, 2022), those agencies should realize the importance of parents' learning from their peers regarding what good parenting standards involve. As such, non-academic supplementary tutoring agencies could consider obtaining help from successful parents who can suggest practices and services on social media. For instance, 'model parents' could be invited to demonstrate how their goal of 'perfectionism' was achieved through the aid of tutoring agencies. Moreover, tutoring agencies should develop differentiated strategies that address both trust-building and vulnerability-related concerns. For instance, these agencies could create different content streams that are led by experts to address educational vulnerability concerns. Finally, tutoring agencies should track different types of social media engagement, monitor the effectiveness of content in course purchases, and regularly evaluate parents' satisfaction with their information channels.

Parents should consider strategies for children's educational investment. First, parents should realize their sources of anxiety and stress regarding children's educational development, i.e., social media. When listening to peer suggestions, parents should heed their own situations (e.g., children's personality and family resources) and actual needs before purchasing non-academic supplementary tutoring services. Second, parents should develop realistic expectations of their children despite the 'perfect children' and 'perfect parents' that frequently appear on social media. In other words, parents should evaluate their children's needs and financial situations before deciding whether and how investments in non-academic supplementary tutoring services could actually benefit their children (in addition to fulfilling their parenting image).

For educational policymakers, it is necessary to provide clear paths for children's academic and non-academic evaluation at different stages of schooling. With academic supplementary tutoring services (for K12 students) removed from the market, many parents still feel anxious about their children's educational development, which is filled with ambiguity. For instance, policymakers could suggest the academic and non-academic paths that could lead to different higher education and careers. Moreover, educational policymakers should consider providing educational resources to meet diversified student needs. Public schools that lack non-academic tutoring resources could consider screening and inviting services from training agencies to better serve students. Finally, educational policymakers should moderate social media regarding parenting standards and practices in order to relieve the unnecessary parental stress developed from social media-facilitated social learning, thereby preventing parents from negative parenting behavior and imitating the behavior of other parents.

5.3. Limitations and future research

This study investigates the impacts of social media facilitating parent social learning for children's non-academic supplementary tutoring services. Despite our efforts, this study is subject to several limitations.

First, the data was self-reported by parents; such data may sometimes report stronger effect sizes compared to objective data. For instance, when reporting 'observed parent image', respondents may not wish to acknowledge their inferiority. Future studies could triangulate self-reported data with secondary data using different methods (e.g., experiments and text mining) to better examine the hypothesized relationships developed in this study. For instance, data mining on social media postings may generate an in-depth understanding of the topic and overcome embarrassment that hamper respondents' reporting accuracies.

Second, parents' social learning through social media could be manipulated in different contexts to increase external validity. Future

studies could replicate this study in children's clothing, healthcare, and living habits.

6. Conclusion

Drawing on social learning theory, we developed a theoretical framework on how parents' social media-based learning influences their intentions to purchase non-academic supplementary tutoring services.

Our research makes three key contributions to the literature. First, we extend social learning theory by demonstrating how observed perfectionism and parent image on social media influence parents' perceptions of their children's educational vulnerability and subsequent purchasing decisions. Our findings reveal that observed perfectionism has the strongest impact on perceived educational vulnerability, while trust in peer word-of-mouth most strongly influences trust transfer to service providers.

Second, we advance understanding of trust transfer mechanisms in educational service contexts by showing how parents' trust in social media peer recommendations transfers to tutoring service providers. This transfer process, combined with perceived child educational vulnerability, drives purchase intentions, especially when facilitating conditions are present.

Third, we contribute to consumer behavior literature by revealing how social media-facilitated social learning affects parents' educational investment decisions. Unlike traditional consumption, where individuals pursue personal status, our findings demonstrate how parents' social learning through social media drives investment in services for their children as an extension of parental identity and status.

These insights enhance our understanding of how social media shapes parental decision-making in educational investments and open new avenues for research on social learning in family consumption contexts. Future research could explore how these mechanisms vary across different cultural contexts and educational service types.

CRediT authorship contribution statement

Jue Zhou: Writing – review & editing, Writing – original draft, Resources, Methodology, Investigation, Formal analysis, Conceptualization. **Sid Suntrayuth:** Supervision, Methodology, Conceptualization.

Ethics approval and consent to participate

This study was approved by the Ethics Committee in Human Research, National Institute of Development Administration (ECNIDA). We obtained informed consent from all the participants at the beginning of the data collection.

Declaration of competing interest

Both authors of this study declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Appendix 1. Questionnaire

Non-academic Supplementary Tutoring Survey for Parents

Thank you for taking the time to complete this survey about non-academic supplementary tutoring courses. It aims to examine the factors influencing parents' intentions to purchase those courses for their children. The survey should take no more than 20 minutes to complete.

Your responses are confidential. To ensure anonymity, no individual or company will be identifiable in our publications.

Please complete all sections of the survey. You can go back at any time to revise your answers.

1. Your gender*

○Male ○Female

2. Your age*

○20-30
○31-40
○41-50
○51 and above

3. Your education*

○High school and below
○College
○Undergraduate
○Postgraduate

4. Your occupation*

○Non-white collar
○White collar

5. Your annual spending on children's supplementary tutoring courses*

○Less than $1000
○$1001-$3000
○$3001 and above

To what extent do you agree or disagree with the following statements? 1-Strongly disagree; 2-Disagree; 3-Neither agree nor disagree; 4-Agree; 5-Strongly agree

6. My friends think that if their child(ren) fail(s) in study, they are a failure as a parent. *

○1 ○2 ○3 ○4 ○5

7. If someone's child performs better than my friends' child(ren), then my friends feel like they failed as parents. *

○1 ○2 ○3 ○4 ○5

8. My friends think that if their child(ren) do(es) not do well in study, people will not respect them. *

○1 ○2 ○3 ○4 ○5

9. My friends think that the fewer mistakes their child(ren) makes, the more people will admire them. *

○1 ○2 ○3 ○4 ○5

10. My friends set higher goals for their child(ren) than most people. *

○1 ○2 ○3 ○4 ○5

11. My friends have extremely high expectations for their child(ren). *

○1 ○2 ○3 ○4 ○5

12. Other people seem to accept lower standards from their child(ren) than my friends do for theirs. *

○1 ○2 ○3 ○4 ○5

13. My friends expect higher performance in their child(ren)'s daily tasks than most other's children. *

○1 ○2 ○3 ○4 ○5

14. Successful parents can impress others through investment in child(ren)'s non-academic supplementary tutoring courses. *

○1	○2	○3	○4	○5	○6	○7

15. Successful parents are recognized by others because of their investment in child(ren)'s non-academic supplementary tutoring courses. *

○1	○2	○3	○4	○5	○6	○7

16. Successful parents' investment in child(ren)'s non-academic supplementary tutoring makes them look cool. *

○1	○2	○3	○4	○5	○6	○7

17. The people in my network who post about non-academic supplementary tutoring courses are experienced in the area to offer advice. *

○1	○2	○3	○4	○5

18. The people in my network who post about non-academic supplementary tutoring are knowledgeable about the area. *

○1	○2	○3	○4	○5

19. The people in my network who post about non-academic supplementary tutoring courses are reliable. *

○1	○2	○3	○4	○5

20. The people in my network who post about who post about non-academic supplementary tutoring courses are trustworthy. *

○1	○2	○3	○4	○5

21. In general, my child(ren) seem(s) less mentally developed than other children. *

○1	○2	○3	○4	○5

22. I often think about hiring a private tutor for my child(ren). *

○1	○2	○3	○4	○5

23. I often have to help my child(ren)'s study because of my concerns. *

○1	○2	○3	○4	○5

24. My child(ren) make(s) more mistakes in study than other children I know. *

○1	○2	○3	○4	○5

25. When there is something negative new about study at school, my child(ren) is(are) usually related. *

○1	○2	○3	○4	○5

26. I get concerned about my child(ren)'s all-around development. *

○1	○2	○3	○4	○5

27. Sometimes I get concerned that my child(ren) do(es)n't look as smart as (s)he(they) should. *

○1	○2	○3	○4	○5

28. I often check on my child(ren)'s study at night to make sure that (s)he(they) is(are) ready for tomorrow. *

○1	○2	○3	○4	○5

29. My child(ren) seem(s) to have less achievements than other children. *

○1	○2	○3	○4	○5

30. I can count on the non-academic supplementary tutoring agency. *

○1	○2	○3	○4	○5	○6	○7

31. I feel that the non-academic supplementary tutoring agency can be trusted. *

○1	○2	○3	○4	○5	○6	○7

32. The non-academic supplementary tutoring agency is reliable. *

○1	○2	○3	○4	○5	○6	○7

33. The double-reduction policy gives me more control over my child(ren)'s tutoring process. *

○1	○2	○3	○4	○5

34. The double-reduction policy allows me to spare money paid on academic tutoring courses to purchase non-academic supplementary tutoring courses. *

○1	○2	○3	○4	○5

35. I have the knowledge necessary to understand the non-academic supplementary tutoring courses my child(ren) will take. *

○1	○2	○3	○4	○5

36. I can select the right non-academic supplementary tutoring courses for my child(ren) even if there was no one around to help me. *

○1	○2	○3	○4	○5

37. I can purchase the non-academic supplementary tutoring courses for my child(ren) reasonably well on my own.*

○1	○2	○3	○4	○5

38. When I select the non-academic supplementary tutoring courses for my child(ren), there is someone who can help me if I experience troubles. *

○1	○2	○3	○4	○5

39. The non-academic supplementary tutoring app systems are compatible with other systems I use. *

○1	○2	○3	○4	○5

40. Given the chance, I would consider purchasing the product/service depicted in the post shared by people in my social media network in the near future. *

○1	○2	○3	○4	○5

41. It is likely that I will purchase the product/service shown in the post shared by people on my social media network. *

○1	○2	○3	○4	○5

42. Given the opportunity, I intend to purchase the product/service as shown in the post shared by people on my social media network. *

○1	○2	○3	○4	○5

43. Are there any other comments you would like to make about your responses or the survey in general?

_____

This is the end of the questionnaire.
Thanks for participating in the survey!

Data availability

Data will be made available on request.

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