Afr. J. Lib, Arch. and Inf. Sc. Vol. 35, No. 1 (January 2025) e35107

https://doi.org/10.4314/ajlais.e35107

The Impact of Digital Information, Scholarly Resources and Library Databases on Gender Roles and Fertility Intentions of Childbearing-Age Groups in China

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Abstract

This study aimed to examine the influence of digital information, online academic resources, and library databases on knowledge and decision-making concerning gender roles and fertility. Data were gathered from a sample of 5,204 individuals within childbearing age groups in China. RStudio was employed to ensure analytical robustness. The findings indicate that digital information, academic resources, and library databases exert a significant and positive impact on gender roles and fertility intentions. This research contributes to a deeper understanding of how digital information sourced from library resources aids the Chinese population in fertility-related decision-making. Additionally, the study offers valuable insights for policymakers seeking to shape fertility intentions through academic literature and digital information accessible via libraries.

Keywords: Digital Information, Library Databases, Scholarly Resources, Fertility Information, Gender Role.

Introduction

China is presently experiencing its second demographic transition, characterised by a declining fertility rate and an ageing population (Ning et al., 2022a). As reported in China's 2020 population census, the national population's average annual growth rate stood at 0.53%, reflecting a decline of 0.04% from the 2010 census. This deceleration in population growth, coupled with a shrinking workforce and decreasing household sizes, indicates that China is approaching zero or potentially negative population growth (Lan and Kuang, 2021). These demographic trends have precipitated various social challenges, notably heightened pressures on childcare and elder care. The primary driver of these issues is the sustained decline in China's fertility rate, which has been in continuous decline since the economic reforms and policy of opening up (Chen, 2022), alongside the enforcement of family planning measures and rapid socio-economic development. The total fertility rate fell below the replacement level of 2.1 during the 1990s, signifying a shift towards persistently low fertility.

Although there was a slight increase in the fertility rate between 2016 and 2017 due to the introduction of the selective two-child policy in 2013 and the universal two-child policy in 2015, this upward trend did not persist, and the fertility rate subsequently declined again. The 2017 National Sample Survey of Fertility revealed that fertility intentions remained low, despite the fact that the previously suppressed fertility aspirations of over 90% of individuals of childbearing age had been effectively released. In response, China introduced the universal three-child policy in 2022 to address the needs of individuals with higher fertility aspirations (Chen and Guo, 2022). The second demographic transition is understood as a transformation from ideological shifts to behavioural changes, predominantly driven by

evolving individual perspectives (Chen et al., 2022). Given that fertility intentions are fundamental to the formulation of fertility policies, it is imperative to examine the social mechanisms underpinning low fertility rates and the factors influencing fertility intentions (Yang et al., 2022). Gaining such insights can facilitate the forecasting of future fertility trends, inform the refinement of fertility policies, and support the development of related social security measures.

A considerable body of research on fertility intentions has examined the role of structural socio-economic factors while also exploring individual and family influences from a micro-level perspective (Liu et al., 2023). The findings of Zhang et al. (2022b) suggest that economic constraints, such as elevated housing costs, discourage families from having children. Similarly, Yan et al. (2021) identified a correlation between higher educational attainment and reduced fertility intentions. Xu et al. (2023) investigated how family-related variables shape fertility preferences. However, there is a paucity of research examining low fertility intentions in China through the lens of gender role attitudes, which encapsulate cognitive and attitudinal dimensions of gender roles and significantly influence individual decision-making and behaviour. Furthermore, fertility is deeply embedded within Chinese cultural traditions (Qiao et al., 2021). The country's birth culture and traditional gender division of labour, reflected in beliefs such as "men engage in external work while women manage the household" and "more children bring greater fortune," have historically influenced fertility behaviour.

Nevertheless, with the significant rise in female workforce participation and the increasing prominence of gender role attitudes that advocate for gender equality, perceptions of fertility and associated cultural norms are evolving (Chu et al., 2022). Prior research has largely concentrated on specific female demographics, particularly rural women and those of childbearing age, while overlooking the perspectives of both genders (Huang et al., 2020). Additionally, previous studies have paid insufficient attention to the role of digital library resources in shaping attitudes towards gender roles and fertility intentions in China. Notably, access to digital information from scholarly sources has the potential to influence individuals' knowledge and perceptions regarding fertility behaviour. Thus, this study seeks to explore the impact of digital information, online academic resources, and library databases on knowledge acquisition and decision-making concerning gender roles and fertility. The findings of this research will contribute to a broader understanding of how digital resources available through libraries support fertility-related decision-making among the Chinese population. Furthermore, the study offers valuable insights for policymakers aiming to influence fertility intentions by leveraging scholarly research and digital information disseminated through libraries.

Review of Literature

Knowledge Management and Digital Access

Knowledge management pertains to how organisations systematically acquire, generate, disseminate, and utilise knowledge to enhance decision-making and foster innovation (Ko et al., 2023). Digital libraries serve as pivotal instruments in this process, facilitating access to diverse academic and public discourses on gender roles and reproduction. The availability of databases such as Web of Science, Scopus, and China National Knowledge Infrastructure has enabled both researchers and the general public to engage with empirical findings and theoretical debates that challenge traditional narratives on gender roles and reproductive behaviour (Liu et al., 2021). As scholarly content continues to expand within digital platforms, the capacity to exchange knowledge across geographical and institutional boundaries has improved, allowing individuals to access and utilise information more effectively (Zhang et al., 2022a). For prospective parents, this digital accessibility provides exposure to evidence-based discussions concerning global fertility trends, reproductive rights, gender equality, and the socio-economic implications of family planning policies (Sayegh et al., 2023). The integration of digital repositories with AI-driven recommendation systems further personalises knowledge acquisition by aligning content with individual cognitive preferences, thereby shaping attitudes towards fertility through targeted exposure to relevant discussions.

Additionally, issues related to gender equality are extensively explored and amplified in online discussions, which are frequently interlinked with digital academic resources (Naroji et al., 2024). In an era where knowledge dissemination is rapid through blogs, discussion forums, and open-access publications, individuals of childbearing age are increasingly exposed to evolving narratives on gender roles (Cao et al., 2022). This heightened awareness contributes to advocacy for policy reforms aimed at fostering gender equity in both professional and domestic spheres. Fertility decisions are also influenced by digital access to reproductive health information (Yu and Liang, 2022). With the proliferation of open-access medical journals, fertility health platforms, and government databases, individuals can access extensive information on reproductive health, contraception, and fertility treatments (Igras et al., 2021).

Unlike previous generations, who primarily relied on familial and communal sources for reproductive advice, contemporary individuals increasingly turn to online scientific, legal, and psychological perspectives when making fertility-related decisions.

One notable impact of digital information accessibility is the debunking of fertility-related myths and misconceptions (Gerrits et al., 2023). Research suggests that individuals with advanced digital literacy are more adept at making informed reproductive choices, guided by evidence-based insights into optimal childbearing timelines, the implications of delayed parenthood, and advancements in assisted reproductive technologies (Matera et al., 2023). Furthermore, online forums provide spaces for individuals to discuss fertility concerns, receive psychological support, seek medical recommendations, and mitigate the social stigma surrounding infertility, while also exploring alternative family planning strategies (Frau et al., 2023). Additionally, access to statistical data on demographic trends, economic conditions, and the environmental impact of reproductive decisions via digital scholarly resources has significantly shaped fertility perspectives. Macroeconomic analyses available through digital repositories have encouraged individuals to align reproductive choices with career aspirations and quality-of-life considerations (Ning et al., 2022b). In China, where the two-child policy and recent efforts to promote third-child births have had mixed outcomes, digital access to policy analyses and fertility trend reports has enabled individuals to make strategic reproductive decisions.

However, the influence of digital information on gender and fertility attitudes is contingent upon digital literacy, which entails the ability to critically evaluate, interpret, and apply online information (Gerrits et al., 2023). Studies indicate that individuals with higher levels of digital literacy are more proficient at distinguishing credible sources from misinformation, thereby enabling them to make autonomous and well-informed reproductive choices (Yu and Liang, 2022). Conversely, the proliferation of digital misinformation and algorithmic biases can distort perceptions, reinforce gendered stereotypes, and exacerbate pregnancy-related anxieties. Governmental and non-governmental initiatives aimed at enhancing digital literacy play a crucial role in equipping individuals with analytical skills that enable them to navigate online academic resources effectively (Igras et al., 2021). Efforts to incorporate digital literacy education into academic curricula further promote critical thinking and challenge entrenched gender norms and reproductive expectations among young adults. Consequently, knowledge management strategies contribute to fostering responsible engagement with digital content, ultimately reinforcing progressive attitudes towards gender equality and reproductive autonomy.

The interplay between knowledge management and digital accessibility has profoundly influenced gender role awareness and fertility intentions among individuals of childbearing age in China. The availability of digital scholarly sources, academic databases, and online discussion platforms has broadened the scope of information accessible to younger generations, encouraging critical reflection on traditional socio-cultural paradigms (Naroji et al., 2024). Empirical insights into gender norms have facilitated shifts in parental roles, promoting greater equity in family responsibilities and informed reproductive decision-making (Cao et al., 2022). However, the extent to which digital exposure shapes attitudes remains dependent on digital literacy, underscoring the need for structured educational interventions to enhance individuals' ability to engage critically with online information.

Fertility Intentions and Gender Role Attitudes

Fertility intention is a multifaceted concept that encapsulates an individual's subjective aspirations regarding their future reproductive behaviour, shaped by various social, economic, and cultural determinants (Liu et al., 2021). It is regarded as a crucial factor influencing population growth and socio-economic development. Broadly, fertility intention comprises three key dimensions (Chu et al., 2022). The first is the desired number of children, which reflects an individual's expectations concerning the total number of offspring they intend to have, shaped by external socio-economic and cultural influences. The second is the preferred timing of childbirth, indicating the ideal age at which individuals plan to conceive. The third dimension is sex preference, denoting an individual's inclination towards a specific gender for their offspring. Fertility intention plays a fundamental role in shaping fertility-related decision-making processes (Kurowska et al., 2023). Consequently, examining fertility intention is essential for predicting contemporary and future fertility trends and population dynamics.

Gender, as a social construct, encompasses the norms and attributes that society ascribes to individuals, defining the distinct roles and expectations assigned to men and women within social structures (Preis et al., 2021). These gender role attitudes shape perceptions regarding appropriate behaviours, responsibilities, and activities for each gender (Sliwa et al., 2021), leading to the emergence of the Separate Spheres Ideology (SSI). The SSI delineates societal roles into public and private

spheres, with the public sphere encompassing economic and social activities related to material production, while the private sphere pertains to familial responsibilities, such as childcare, elder care, and domestic labour. A widely acknowledged disparity exists in the division of labour between men and women, particularly concerning the allocation of paid employment and unpaid domestic responsibilities (Lan et al., 2024).

Digital Information, Gender Role and Fertility Intentions

Economic constraints, including household income (Akoku et al., 2022), the substantial financial demands of child-rearing and education, and escalating housing costs (Liu et al., 2021), have increasingly compelled families to suppress their fertility aspirations. From a macroeconomic perspective, improvements in social and economic conditions have emerged as key contributors to declining fertility intentions. As urbanisation intensifies and regional economies advance, fertility intentions tend to diminish (Harries et al., 2020). Moreover, cultural influences remain pivotal, with families adhering to traditional fertility norms, such as the expectation of "raising sons for support in old age," exhibiting higher fertility intentions than others (Chen et al., 2022). However, the introduction of new rural cooperative medical systems (NCMS) has progressively replaced the function of such cultural traditions, thereby reducing fertility aspirations.

Karabchuk (2020) posits that gender equality contributes to declining fertility rates. Some scholars argue that women who adhere to traditional social roles yet have access to digital information tend to have higher fertility rates than their more modern counterparts. Empirical research in China corroborates the positive influence of traditional gender role attitudes on fertility intentions (Minervini et al., 2023). These studies underscore digital information access as a crucial determinant in shaping family fertility behaviour. However, Bahri Khomami et al. (2021) emphasise the need for improved access to digital information to enhance public understanding of gender roles and fertility intentions. Despite increasing female labour market participation and socioeconomic advancements facilitated by digital information access, traditional gender roles continue to shape women's reproductive attitudes (Chen and Saman, 2021).

According to Qian et al. (2020), the economic and labour-related advantages of childbearing, particularly the perceived utility of a second child, may incentivise professional women to consider expanding their families. Consequently, governmental initiatives are necessary to disseminate digital information that influences women's fertility intentions. Furthermore, Matera et al. (2023) suggest that as women's career trajectories advance, their fertility rates tend to decline when they acquire digital information and develop a deeper understanding of gender roles. Similarly, Grace et al. (2023) identify a negative correlation between digital information exposure, egalitarian gender role attitudes, and fertility rates across various developed nations. While a definitive consensus on the interplay between digital information, gender role perceptions, and fertility intentions remains elusive, existing theoretical and empirical research has led to the formulation of the following hypotheses.

H1: There is an impact of digital information on fertility intention.
H2: There is an impact of digital information on gender role.

Scholarly Resources, Gender roles and Fertility Intention

Modern gender role attitudes stem from prolonged socio-economic and cultural evolution. Economically advanced regions with strong social security systems generally exhibit more progressive gender attitudes than agricultural and underdeveloped areas (Hashemzadeh et al., 2021). In China, the urban-rural hukou system has resulted in distinct economic structures, with rural areas experiencing limited modernisation, thereby maintaining traditional gender divisions of labour (Matera et al., 2023). Consequently, patriarchal norms, such as the perception of male superiority, persist, leading to greater household responsibilities for women at the expense of labour market participation (Zeng et al., 2023). Social gender awareness is shaped by socialisation processes, including family background and education. Scholarly literature significantly influences gender role attitudes across different contexts (Castro Lopes et al., 2022). Understanding gender roles is crucial for individuals to effectively fulfil their societal responsibilities (Ning et al., 2022a). In marital life, Kuronen et al. (2021) emphasise the importance of couples recognising their roles and responsibilities based on scholarly insights. Zimmerman et al. (2024) highlight the role of academic literature in shaping fertility intentions among couples. Similarly, Bahri Khomami et al. (2021) note that both online and offline scholarly resources provide valuable information on gender roles and fertility, influencing couples' perspectives. Accordingly, this study proposes the following research hypotheses.

H3: There is an impact of scholarly resources on fertility intention.

H4: There is an impact of scholarly resources on gender role.

Library Databases, Gender Roles and Fertility Intention

In the digital era, access to information through libraries and the internet is driving significant societal transformations (Yang et al., 2022). The 21st century is characterised by scientific progress and the rapid dissemination of information, reshaping emotional concepts, value orientations, moral standards, cognitive frameworks, and behavioural patterns (Vogels-Broeke et al., 2022). With the internet deeply embedded in daily life, digital library resources have become more accessible (Liu et al., 2023). Research highlights the crucial role of library resources in shaping public intentions and behaviours (Maeda et al., 2020). Increased engagement with library resources provides individuals with up-to-date information and diverse perspectives, influencing their perceptions of fertility and gender roles (Serçekuş et al., 2021). Qiao et al. (2021) suggest that digital library usage enhances access to gender equality information, fostering a shift from traditional to egalitarian gender role attitudes (Yan et al., 2025), particularly among women, individuals with lower human capital, and unmarried populations (Preis et al., 2021). Empirical findings further demonstrate that digital library resources impact societal perceptions of fertility and gender roles (Chen and Guo, 2022). To balance work and family responsibilities, women often adjust their job arrangements due to their disproportionate share of unpaid household labour, a decision informed by library resources (Zhang et al., 2022a). Bhan et al. (2023) found that digital library access enhances fertility intentions among educated women by facilitating remote work opportunities. Conversely, Huang et al. (2020) reported a negative correlation between library resource usage and fertility intentions. Despite these insights, research remains limited on the role of library databases in shaping fertility-related decisions among childbearing-age individuals. Accordingly, this study proposes the following research hypotheses.

H5: There is an impact of library databases on fertility intention.
H6: There is an impact of library databases on gender role.

Materials and Methods

Population

This study's population includes all 31 provinces, autonomous regions, and municipalities in mainland China, encompassing respondents aged 18 and above. This broad coverage ensures a comprehensive dataset reflecting diverse personal, familial, and social characteristics. To specifically examine fertility intentions, the study focuses on respondents within the childbearing age range of 18 to 49 years.

Data Collection and Analysis

The study employed a survey-based methodology for data collection, conducted from January 2023 to December 2024. Respondents were approached using a convenience sampling method and were informed that their personal information would solely be used for research analysis. Upon obtaining their consent and ensuring confidentiality, data were gathered through distributed questionnaires. A preliminary analysis was conducted to assess the dataset, after which cases with missing values and invalid responses—resulting from refusals to answer certain variables—were excluded. Following this process, the final sample comprised 5,204 individuals. Data analysis was performed using RStudio, where regression analysis was applied to derive the study's findings (Murad et al., 2025).

Results

Descriptive Statistics

Table 1 presents the variable definitions and descriptive statistics. The sample comprises 2,396 males (46%) and 2,813 females (54%). Stratification by residence indicates that 3,293 participants (63%) are from rural areas, while 1,916 (37%) reside in urban regions. The data further reveals a prevailing preference among individuals of childbearing age for having two or more children, with 75.18% expressing a willingness to have at least one child.

Table 1: Demographics.

Variable	Category	Count	Percentage (%)
Gender	Male	2396	46
	Female	2813	54
Residence	Rural	3293	63
	Urban	1916	37
Childbearing Preference	Willing to have ≥1 child	3913	75.18
	Prefer 1 or no child	1296	24.82

Inferential Statistics

The study employed RStudio for data analysis, initially assessing variable correlations. Pearson correlation analysis was conducted, with statistical significance determined at $p < 0.05$ (Benesty et al., 2009). As shown

in Table 2, all variables exhibited p values below 0.05, confirming significant correlations among them. The detailed results of the Pearson correlation analysis are presented in Table 2. Moreover, the study further examined the model summary using RStudio. The R value indicates the correlation between the dependent and independent variables, with values exceeding 0.4 considered for further analysis. The R-square represents the proportion of variance in the dependent variable explained by the independent variables, with a threshold of 0.5 indicating a sufficiently effective model. Adjusted R-square reflects the generalisability of the results and accounts for sample variation from the population in multiple regression, with minimal difference from R-square preferred. As reported in Table 3, the model summary met these criteria, confirming its reliability for further analysis.

Table 2: Pearson Correlation.

Variable		1	2	3	4	5
1. DI	Pearson's r	—				
	P-Value	—				
2. SR	Pearson's r	0.733	—			
	P-Value	<.001	—			
3. LD	Pearson's r	0.701	0.725	—		
	P-Value	<.001	<.001	—		
4. GR	Pearson's r	0.678	0.627	0.68	—	
	P-Value	<.001	<.001	<.001	—	
5. FI	Pearson's r	0.708	0.775	0.685	0.648	—
	P-Value	<.001	<.001	<.001	<.001	—

Note: DI = Digital Information, SR = Scholarly Resources, LD = Library Databases, GR = Gender Role and FI = Fertility Intention.

Table 3: Model Summary.

Model	R	R^2	Adjusted R^2
M_0	0	0	0
M_1	0.74	0.548	0.545

The study conducted an Analysis of Variance (ANOVA) using RStudio to assess the model's suitability for further analysis. A 95% confidence interval or a 5% significance level was applied, requiring a p-value below 0.05, which was confirmed in this study. The F-ratio, indicating the model's predictive improvement while accounting for inaccuracies, must exceed 1 for model efficiency. As shown in Table 4, the findings support the model's validity. Furthermore, the analysis of coefficients was conducted to examine the relationships among research variables. The findings confirmed a significant impact of digital information on fertility intention and gender role. Additionally, scholarly resources were found to significantly influence both fertility intention and gender role. Furthermore, library databases exhibited a significant impact on fertility intention and gender role. Consequently, all hypotheses (H1–H6) were supported, as presented in Figure 1 and Table 5.

Table 4: Analysis of Variance.

Model		Sum of Squares	df	Mean Square	F	P
M_1	Regression	199.759	3	66.586	173.262	<.001
	Residual	164.869	429	0.384		
	Total	364.628	432			

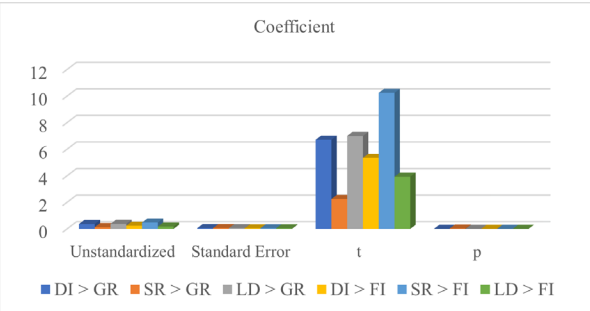

Figure 1: Coefficients.

Table 5: Coefficient.

Paths	Unstandardized	Standard Error	t	p
DI > GR	0.362	0.054	6.707	<.001
SR > GR	0.129	0.058	2.244	0.025
LD > GR	0.374	0.053	6.993	<.001
DI > FI	0.232	0.043	5.345	<.001
SR > FI	0.476	0.046	10.241	<.001
LD > FI	0.169	0.043	3.93	<.001

Discussion

The empirical analysis validated the proposed

hypotheses and contributed to the existing literature by addressing the inconclusive findings of prior studies regarding the impact of digital information, scholarly resources, and library databases on gender role attitudes and fertility intentions (Zeng et al., 2023). This study provides a comprehensive examination, confirming that digital information significantly influences both fertility intention and gender role. Similarly, scholarly resources and library databases were found to exert a significant impact on fertility intention and gender role. These findings align with previous research while offering novel insights into the underlying mechanisms. The study establishes a statistically significant positive relationship between traditional gender role attitudes and fertility intentions, suggesting that digital information, scholarly resources, and library databases support individuals of childbearing age in considering two or more children. Prior studies, including Hashemzadeh et al. (2021) and Akoku et al. (2022), have similarly highlighted the role of scholarly digital information in shaping fertility intentions. Additionally, Qian et al. (2020) reinforced these findings by emphasising that access to scholarly resources enhances the influence of digital information on gender role perceptions.

According to Chen and Saman (2021), a stronger adherence to traditional gender role attitudes reinforces alignment with conventional notions such as "more children, more blessings" and the preference for male offspring, which are deeply embedded in traditional fertility culture. However, Yan et al. (2025) argue that scholarly research can provide a comprehensive understanding of fertility attitudes, particularly for individuals of childbearing age. Similarly, Grace et al. (2023) highlight disparities in factors influencing fertility intentions across different genders and hukou statuses, while Liu et al. (2021) assert that digital library-based information management can shape fertility intentions by providing access to relevant knowledge. Regarding the influencing mechanism, digital information and scholarly resources play a significant role in reshaping gender roles and expanding individuals' perceptions of family responsibilities beyond traditional norms (Bhan et al., 2023). Increased accessibility to digital information amplifies the impact of gender role attitudes on the inclination to expand family size (Karabchuk, 2020). According to Maeda et al. (2020), individuals adhering to traditional gender role norms are exposed to supportive parenting content through digital resources, which strengthens their resolve to have larger families. Therefore, digital information-based awareness is crucial for disseminating knowledge through online platforms, enabling individuals to develop a more nuanced understanding of gender roles and enhancing their fertility intentions.

Implications

In light of the findings, this study proposes two key considerations for policymakers to enhance fertility intentions among the reproductive-age cohort. The study underscores the significant impact of digital information, scholarly resources, and library databases on gender roles and fertility intentions. Given the ongoing trajectory towards gender equity and the comprehensive implementation of the three-child policy in China, raising awareness regarding fertility and gender roles is imperative. This can be achieved by expanding access to digital information, scholarly resources, and library databases. Individuals of childbearing age are encouraged to engage with academic literature available in digital libraries to shape their perspectives on gender roles and fertility intentions, highlighting the critical role of library-based information in this regard.

Primarily, fostering fertility intentions among the reproductive-age cohort necessitates coordinated efforts between enterprises, governmental institutions, and society at large. Fertility support policies should adopt a comprehensive approach that integrates awareness initiatives through digital libraries and scholarly resources while establishing a social framework that effectively addresses the pervasive "work-family" dilemmas encountered by women of childbearing age. Notably, while policies such as extended maternity leave may be well-intentioned, they risk reinforcing traditional gender norms by implicitly positioning women as primary caregivers. Therefore, individuals of childbearing age are advised to engage with literature on gender roles and responsibilities available on digital platforms, which can significantly shape their attitudes. Additionally, promoting greater male involvement in domestic responsibilities—such as childcare, household management, and eldercare—is essential. Initiatives such as extended paternity leave could help dismantle gender-based divisions within family structures, fostering a more collaborative and equitable approach to gender roles.

Secondly, the construction of modern gender role attitudes should emphasise the role of awareness and scholarly discourse in shaping individual consciousness and self-identification. In the digital era, libraries serve as vital platforms for communication and intellectual exchange, with people increasingly reliant on digital scholarly sources. Therefore, greater attention must be paid to the instability of the female discourse system in digital information, avoiding the use of labels in public discourse, such as "female driver" or "female PhD." Awareness campaigns should be designed to reflect modern gender role

concepts, encouraging informed fertility-related decision-making. Furthermore, mechanisms for strengthening the self-regulation and supervision of digital information from online libraries should be established to prevent the perpetuation of symbolic and stereotypical gender representations. As a result, library-based information plays a crucial role in fertility-related decision-making and the dissemination of critical knowledge.

Limitations

Despite the availability of data, this study has certain limitations. Firstly, there is no standardised measurement for gender role attitudes or a specialised questionnaire on gender roles in China, which may affect the consistency of findings. Secondly, given the current demographic challenges in China, this study defines fertility intention based on the desired number of children. However, some studies measure fertility intention using both the desired number of children and the number of planned children, as fertility planning is often considered part of fertility behaviour. Thus, this study does not sufficiently account for the number of planned children. Lastly, with regard to family and economic characteristics, a significant number of missing values and outliers led to their exclusion from the analysis to ensure model robustness. Therefore, future research should conduct more in-depth and detailed analyses of additional factors influencing fertility intentions among individuals of childbearing age, particularly regarding multiple-child preferences.

Conclusion

In conclusion, given the critical role of fertility intentions in shaping fertility policies, this study offers empirical evidence on the influence of digital information, scholarly resources, and library databases on fertility levels and the determinants of fertility intentions among childbearing-age populations in China. By highlighting these factors, the study draws the attention of policymakers and practitioners to the significance of digital information in shaping gender role perceptions and fertility-related decisions. Furthermore, this research enriches the discourse on fertility intention by integrating perspectives on gender role attitudes and their implications for fertility behaviour. Future studies could build on these findings by examining the impact of value-based gender role attitudes on fertility decisions. Additionally, closely monitoring changes in fertility intentions is crucial for predicting future fertility trends, refining fertility policies, and formulating appropriate social security measures.

Conflict of Interest

The authors 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.

Funding

This research received no external funding.

Acknowledgments

We would like to thank the CGSS team and all respondents and their contributions.

Data Availability Statement

Dataset is available on request from corresponding author.

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