

Factors Influencing Senior Faculty's Intention to Use University Library WeChat Official Accounts: A Postprint Study

Authors: Wang Zheng, Liu Shuai

Date: 2023-07-26T00:00:00+00:00

Abstract

[Purpose/Significance] The low usage intention among senior teachers has severely hindered the development and progress of university library WeChat public platforms, making it necessary to investigate the factors influencing senior teachers' usage intention for university library WeChat public platforms. [Method/Process] The Technology Acceptance Model was improved and extended; based on structural equation modeling, moderating factors such as gender, age, and experience were introduced to construct a usage intention model for senior teachers regarding university library WeChat public platforms, and the model and hypotheses were tested and analyzed using survey data from universities in Sichuan. [Results/Conclusion] The research results indicate that, overall, the model demonstrates good explanatory power for senior teachers' usage intention toward university library WeChat public accounts; regarding individual influencing factors, perceived usefulness and group influence have significant positive effects on senior teachers' usage intention for university library WeChat public accounts, while physiological function significantly negatively affects their usage intention.

Full Text

Preamble

ChinaXiv Cooperative Journal

Volume 63, Issue 6, March 2019

Research on Influencing Factors of Elderly Teachers' Intention to Use University Library WeChat Official Platforms

Wang Zheng¹, Liu Shuai²

¹School of Economic Information Engineering, Southwestern University of Finance and Economics, Chengdu 611130

²School of Marxism, Southwestern University of Finance and Economics, Chengdu 611130

Abstract

[Purpose/Significance] Low usage intention among elderly teachers has seriously hindered the development and progress of university library WeChat public platforms. Therefore, it is necessary to investigate the factors influencing elderly teachers' willingness to use these platforms. **[Method/Process]** This study improves and extends the Technology Acceptance Model by introducing moderating factors such as gender, age, and experience based on structural equation modeling to construct a model of elderly teachers' intention to use university library WeChat public platforms. The model and hypotheses were tested and analyzed using survey data from universities in Sichuan Province. **[Result/Conclusion]** The results demonstrate that the model provides a good overall explanatory effect on elderly teachers' intention to use university library WeChat official accounts. Specifically, perceived usefulness and group influence have significant positive effects on usage intention, while physiological function significantly negatively affects it.

Keywords: library information service; WeChat official account; elderly teacher; usage intention; influencing factors

Classification Number: G250.7

DOI: 10.13266/j.issn.0252-3116.2019.06.006

Introduction

In recent years, WeChat public platforms (accounts) have become one of the most important tools for university library services. They have transformed the interaction patterns between university libraries and readers, and are widely favored for their convenient and efficient information dissemination and resource acquisition methods. By August 2017, over 95% of university libraries in China had launched WeChat public platforms, significantly expanding channels for information exchange, sharing, and cultural promotion. Readers can promptly access the latest updates on library resources through these platforms and enjoy modern, personalized library services.

Concurrently, China entered a stage of rapid population aging in 2015. By the end of 2017, the population aged 60 and above had exceeded 231 million, with the proportion of elderly people increasing from 14.3% in 2012 to 16.7% of the total population. Elderly teachers have become one of the most important service targets for university libraries and should be beneficiaries of library WeChat public platforms. However, a review of current domestic research on CNKI reveals that studies on the service effectiveness of university library WeChat public platforms primarily focus on young and middle-aged readers (over 50 articles), while largely neglecting elderly teachers (only one partially relevant article). More problematically, some studies subjectively assume that elderly teachers

lack information literacy or suffer from degraded physiological functions, resulting in low acceptance of new media and consequently abandoning research in this area. This research gap has created a blind spot in understanding the application status and service demands of elderly teachers regarding library WeChat public platforms, which is clearly unfair to those senior educators who remain dedicated to teaching and research and care deeply about higher education.

The lack of relevant research and services has further contributed to low usage intention among elderly teachers for university library WeChat public platforms. This not only violates Article 34 of China's Public Library Law, which states that "public libraries should consider the characteristics of elderly groups and provide suitable literature information resources, facilities, equipment, and services," but also hinders progress and innovation in aging services within China's university library sector. To address these issues, this study constructs a model of elderly teachers' intention to use university library WeChat public platforms (hereinafter referred to as "usage intention") based on structural equation modeling. Using 692 teachers aged 55 and above from six university library WeChat public platforms in Sichuan Province as research subjects (to investigate non-retired elderly teachers, this study defines elderly teachers as those aged 55 and above), the model and hypotheses were tested and analyzed to identify key influencing factors and moderating factors, aiming to promote the healthy and rapid development of aging services in university library WeChat public platforms.

Literature Review and Research Hypotheses

2.1 Literature Review and Theoretical Foundation

With the advent of the internet era, particularly the rise of mobile internet, numerous scholars have conducted multi-level and multi-faceted research to accurately and comprehensively characterize and explore elderly users' library information service acceptance/adoption behaviors and needs, achieving certain results.

2.1.1 Research on Elderly Teachers' New Reading Service Needs

Chen Yanwei and Deng Yongqiu, based on statistical analysis data from public libraries, noted that age and experience significantly affect elderly users' acceptance of library services [1-2]. Chen Xi and Yang Yujuan analyzed the current status of online reading among elderly intellectual groups in the mobile internet era, finding that although elderly people have a low voice in new media, elderly teachers are very willing to adopt and accept new reading services [3-4]. Li Jiaying et al.'s research indicates that third-age teachers have both a similarly urgent desire to participate in new media like WeChat public platforms as younger people, and distinctly different content needs, requiring in-depth research to provide personalized and aging-appropriate services for elderly readers [5-6]. These studies primarily used descriptive statistical analysis to identify elderly teachers' new reading needs but did not conduct in-depth analysis or causal explanations of these needs.

2.1.2 Research on Elderly Teachers' New Reading Service Applications

Z. Kathryn et al., through data statistics and analysis, proved that elderly people's usage rate of social public platforms is comparable to that of young people, but requires deeper exploration of personalized and differentiated needs to provide more precise and quality services for elderly readers [7]. L. T. SMARN et al. pointed out that the library science community must thoroughly study the matching degree between information services and elderly needs to improve elderly users' adoption rate and acceptance of library information services [8]. A. R. J. Maria et al. noted that one of the main contradictions in current library information services is university libraries' failure to adjust information service strategies and methods to adapt to the changing reading service landscape of an aging network society [9]. These studies primarily discussed deficiencies in elderly reading services but lacked causal analysis and in-depth exploration of elderly readers' service needs, limiting their practical guidance value.

2.1.3 Impact of Individual Differences Among Elderly Teachers on Reading Service Needs

A. R. J. Friederike and B. Friederike et al. pointed out that universal library network information services must fully consider the needs of users at all age levels to serve all readers to the greatest extent possible [9-10]. B. Hayar noted in their research that the practicality of library network service platforms has a huge impact on elderly teachers' adoption intention, and that practicality factors must be distinguished from ease-of-use factors to better meet elderly teachers' needs [11]. Although these studies found that individual differences among elderly teachers affect reading service needs to some extent, they did not quantitatively examine the degree of influence of these individual attributes, limiting their reference value.

2.1.4 Research on Influencing Factors of Elderly Teachers' New Reading Service Adoption Intention

B. Hayar's research found that the ease of use of library services has a significant impact on elderly teachers, and that physiological, psychological, and other factors must be analyzed to comprehensively improve ease of use [11]. L. Janne confirmed this view and further pointed out that library network services must improve ease of use to remain competitive [12]. M. H. Ryu's research indicates that ease of use does not simply refer to easily understandable prompts for library services but is an integrated influencing factor composed of multiple sub-factors [13]. P. David comprehensively reviewed influencing factors of library information service adoption intention in previous research and summarized them into three categories: practicality, ease of use, and group influence [15]. T. R. Liyanagunawardana et al. made similar summaries in the field of elderly teacher services and introduced some intermediate variables such as satisfaction and pleasure [16]. E. Nelson and S. Vijeyaluxm discussed strategies for improving service satisfaction among elderly readers and provided hypotheses and models based on the three major adoption influencing factors of practicality, ease of use, and group influence [16-17]. These studies conducted relatively

detailed analyses of influencing factors of elderly teachers' new reading service adoption intention, but their research objects were primarily library service information systems, lacking in-depth discussion on elderly teachers' adoption intention for new media tools like WeChat.

2.1.5 Matching Research on Elderly Readers' Needs and Influencing Factors

I. J. Ikenwe, S. Laura, W. Wanda et al. investigated and analyzed elderly teachers' library network information service needs and conducted preliminary sorting of various needs through empirical analysis [19-21]. N. E. Justina's research proposed that elderly physiological and psychological factors have reverse effects on service adoption behavior, supplementing other research [21]. However, these studies still suffer from shallow research depth and focus more on listing needs than analyzing causes, requiring further in-depth exploration and analysis by this study.

Based on the above research achievements and gaps, this study extracted four items as basic influencing factors to be verified: perceived usefulness, perceived ease of use, group influence, and physiological function. Three items were extracted as moderating factors between these influencing factors and library WeChat public platform usage intention: gender, age, and usage experience. Structural equation modeling and testing were used to explore and analyze the questions raised in the introduction.

2.2 Theoretical Model and Research Hypotheses

Through summarizing the above literature and previous achievements, this study proposes the following research model (see Figure 1 [Figure 1: see original paper]) and hypotheses:

(1) Perceived Usefulness Variable

From the latest technology acceptance theory, when users perceive practical value in certain information services, this perception positively influences their adoption and usage intentions. Gender, age, and experience variables moderate the degree of influence of perceived usefulness on usage intention. Therefore, this study makes the following hypotheses:

H1-1: Perceived usefulness has a significant positive effect on elderly teachers' intention to use university library WeChat public platforms.

H1-2: The influence of perceived usefulness on elderly teachers' intention to use university library WeChat public platforms is moderated by gender.

H1-3: The influence of perceived usefulness on elderly teachers' intention to use university library WeChat public platforms is moderated by age.

H1-4: The influence of perceived usefulness on elderly teachers' intention to use university library WeChat public platforms is moderated by experience.

(2) Perceived Ease of Use Variable

Previous research in reader services shows that perceived ease of use reflects users' perception of how easy it is to operate and apply certain information

services. Generally, when users find an information service easy to use, this perception positively influences their adoption intentions. Previous research also indicates that the degree of influence of perceived ease of use on usage intention varies with gender, age, and experience. To verify whether these conclusions hold in this study, the following hypotheses are designed:

H2-1: Perceived ease of use has a positive effect on elderly teachers' intention to use university library WeChat public platforms.

H2-2: The influence of perceived ease of use on elderly teachers' intention to use university library WeChat public platforms is moderated by gender.

H2-3: The influence of perceived ease of use on elderly teachers' intention to use university library WeChat public platforms is moderated by age.

H2-4: The influence of perceived ease of use on elderly teachers' intention to use university library WeChat public platforms is moderated by experience.

(3) Group Influence Factor

Group influence refers to the degree to which users are influenced by surrounding people when using information services. Previous research shows that when people around users approve of their adoption of an information service, it positively affects their usage intention, with the degree of influence varying according to elderly teachers' gender, age, and experience. Based on these findings, this study designs the following hypotheses:

H3-1: Group influence has a positive effect on elderly teachers' intention to use university library WeChat public platforms.

H3-2: The influence of group influence on elderly teachers' intention to use university library WeChat public platforms is moderated by gender.

H3-3: The influence of group influence on elderly teachers' intention to use university library WeChat public platforms is moderated by age.

H3-4: The influence of group influence on elderly teachers' intention to use university library WeChat public platforms is moderated by experience.

(4) Physiological Function Factor

Physiological aging (referred to as "physiological function") is a factor that reduces elderly teachers' intention to use university library WeChat public platforms, with aging issues being most prominent. Particularly when elderly readers feel that reading convenience and comfort have decreased, their intention to use university library WeChat public platforms will also decrease. Based on this understanding, this study designs the following hypotheses:

H4-1: Physiological aging has a significant negative effect on elderly teachers' intention to use university library WeChat public platforms.

H4-2: The influence of physiological aging on elderly teachers' intention to use university library WeChat public platforms is moderated by gender.

H4-3: The influence of physiological aging on elderly teachers' intention to use university library WeChat public platforms is moderated by age.

H4-4: The influence of physiological aging on elderly teachers' intention to use university library WeChat public platforms is moderated by experience.

Survey and Statistics

Based on the model constructed above and previous research findings, this study developed a questionnaire on elderly teachers' intention to use university library WeChat public platforms. Experts and scholars from Sichuan Provincial Library were invited to revise the questionnaire in terms of content, expression, and structure to ensure content validity. The final questionnaire was administered and data were collected by six university libraries in Sichuan Province, providing the foundational data for this study. To ensure questionnaire reliability, this study conducted tests using pre-survey data, with final test results (see Section 4) indicating good reliability. This study targeted elderly teachers (aged 55 and above) who had used or were using WeChat public services from six universities in Sichuan Province. Random sampling was used for questionnaire distribution, with 1,000 questionnaires distributed and 692 valid questionnaires returned (37 questionnaires from teachers aged 50-55 were used as reference), achieving a valid response rate of 69.20%. This demonstrates strong participation willingness among elderly teachers in university WeChat public platforms. Demographic statistics from valid questionnaires are shown in Table 1.

Reliability and Validity Tests

This study used SPSS and AMOS statistical analysis software to process the data and revise the questionnaire. The reliability and validity test results and revision process are as follows:

4.1 Reliability Test

Reliability refers to the consistency of measurement results when the same method is used to measure the same object multiple times, also described as the stability and consistency of measurement results. This study first tested the explanatory power of the questionnaire using factor loadings and revised the questionnaire based on the results. Regarding standardized coefficient (factor loading) squared tests, previous research typically considers that if the standardized coefficient exceeds 0.70, the common factor can explain more than 50% of the variance in the indicator variable, indicating good factor loading; if it exceeds 0.63, the common factor can explain more than 40% of variance, indicating acceptable factor loading; but if it is less than 0.32, the common factor can explain less than 10% of variance, indicating poor factor loading. Several items in the original questionnaire (items 2-5, 3-5, 3-6, 4-2, 4-4) did not meet the 0.63 threshold and were deleted to ensure all remaining independent items met the standard. After revision, this study tested the overall reliability of the questionnaire using Cronbach's α values to examine internal consistency among questionnaire items. Previous research generally considers that the overall reliability coefficient (Cronbach's α) should reach 0.80, while sub-scale reliability coefficients should reach 0.70 for the questionnaire to have acceptable reliability. Table 2 shows that the overall Cronbach's α reached 0.89, with each sub-scale exceeding 0.70 (0.77-0.93), indicating good reliability for both the overall

questionnaire and individual items. Additionally, to ensure reliability of latent variables, this study tested composite reliability to examine consistency among latent variables. As shown in Table 3, the composite reliability between variables reached 0.77-0.93, indicating good internal consistency and providing a reliable data foundation for subsequent model validation.

4.2 Validity Test

Validity refers to the accuracy of measurement methods and instruments, i.e., the degree to which a measurement tool can accurately measure the intended object. This study tested validity from two aspects: convergent validity and discriminant validity. Convergent validity indicates whether questionnaire items describe the same object. When convergent validity is poor, questionnaire items cannot jointly describe one object, meaning the questionnaire lacks unified connotation. Based on previous experience, this study used factor loadings and average variance extracted (AVE) values to test convergent validity: only when factor loadings exceed 0.50 and AVE values exceed 0.50 do questionnaire items have good convergent validity. Table 3 shows that factor loadings ranged from 0.71 to 0.93, and AVE values for all six latent variables exceeded 0.62, indicating good convergent validity.

Discriminant validity refers to the degree to which a measurement questionnaire can distinguish between different factors, i.e., whether variables in the questionnaire are significantly different from other variables. Generally, when the correlation coefficient between two variables is 0, they are most distinct; the closer to 1, the less distinct they are. Based on previous experience, this study compared AVE values with squared correlation (2R) factors to test discriminant validity. As shown in Table 4, for example, the AVE value for perceived usefulness reached 0.62, while the AVE for perceived ease of use reached 0.67, with a correlation coefficient of 0.55 and a 2R value of 0.325. Therefore, the AVE values exceeded the 2R values, indicating good discriminant validity between the two latent variables, meaning they are significantly different. Further examination of Table 4 shows that all latent variables' AVE values exceed the squared correlation coefficients (2R) between variables, indicating good discriminant validity for the questionnaire.

Structural Equation Model Analysis

5.1 Fit Analysis

To ensure effective hypothesis testing and path analysis, this study conducted model fit verification. Based on previous experience, the following fit indices were used: chi-square to degrees of freedom ratio (χ^2/df), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), normed fit index (NFI), comparative fit index (CFI), and root mean square residual (RMR). The final fit test results are shown in Table 5, with all indices reaching good or better levels. Therefore, overall, the proposed research model demonstrates good fit.

5.2 Path Analysis

Path analysis results are shown in Figure 2 [Figure 2: see original paper]. The model's total explained variance reached 63%, indicating that the independent variables in this study's model have high explanatory power for the dependent variable and can fully represent its connotation and meaning. As shown in Figure 2, specific path coefficients in the model are as follows: the path coefficient between perceived usefulness and WeChat platform acceptance intention is 0.42 ($P=0.000$); *the path coefficient between group influence and WeChat platform acceptance intention is 0.27 ($P=0.000$)*; the path coefficient between physiological function and WeChat platform acceptance intention is -0.22 ($P=0.000^{***}$). Therefore, hypotheses H1-1, H3-1, and H4-1 are supported. However, since the positive influence of perceived ease of use on WeChat platform acceptance intention is not significant, hypothesis H2-1 is not supported. Final analysis results are shown in Table 6 .

5.3 Path Moderation Analysis

Following path analysis, this study further examined the moderating effects of moderating variables on the strength and direction of relationships (paths) between independent and dependent variables in the model. Based on the above hypotheses, this study analyzed the moderating effects of elderly teachers' gender, age, and WeChat usage experience on WeChat public platform usage intention. Results are shown in Table 7 . The analysis indicates that the influence of physiological function on acceptance intention differs significantly between genders, with elderly male readers' acceptance intention being more affected by physiological function than elderly female readers. Therefore, hypothesis H5-2 is supported. However, gender's moderating effect is not significant in other paths, so hypotheses H1-2, H2-2, H3-2, and H4-2 are not supported.

Table 7 shows that under the moderating effect of age, the path coefficient between perceived ease of use and WeChat platform acceptance intention differs significantly. That is, as elderly teachers' age increases, if they find the WeChat platform easy to use, their acceptance intention will increase substantially. Therefore, hypothesis H2-3 is supported. However, under age moderation, path coefficients between other variables and acceptance intention do not differ significantly, so related hypotheses are not supported.

Table 7 also shows that under the moderating effect of experience, the path coefficient between group influence and WeChat platform acceptance intention differs significantly. This indicates that elderly teachers with less WeChat usage experience have usage intention more easily influenced by surrounding groups, so hypothesis H3-4 is supported. However, this moderating variable does not significantly affect other path coefficients, so related hypotheses are not supported.

Conclusions, Interpretation, and Recommendations

Through the above analysis and discussion, this study obtained two findings significantly different from previous research:

First, contrary to common intuitive perceptions (such as elderly people having poor acceptance of new things), elderly teachers actually have relatively high attention to and investment in library WeChat official accounts due to having more spare time and energy, resulting in very high acceptance levels.

Second, this study found that elderly teachers' proficiency in operating WeChat official accounts is not inferior to that of young and middle-aged teachers, which also differs from previous conclusions (such as elderly people being very sensitive to perceived ease of use). This can be explained by: (1) elderly teachers generally have higher education levels, resulting in stronger new technology acceptance ability and mobile phone operation skills compared to other elderly groups, making it easier for them to learn and master WeChat official account operations; (2) as a universal information platform, WeChat official accounts have fully considered operational convenience and learning simplicity during design and development, so elderly teachers rarely encounter obstacles or bottlenecks in the learning and mastery process.

Further elaborating on these results and combining them with previous research, this study discusses influencing factors of elderly teachers' intention to use university library WeChat public platforms (hereinafter "usage intention") as follows:

(1) Perceived Usefulness Significantly Positively Affects Elderly Teachers' Usage Intention. This result indicates that elderly teachers focus on the actual auxiliary effects on reading activities when using university library WeChat public platforms. When elderly teachers believe that the platform significantly helps reading activities and library services, their intention to use it will be higher. This conclusion aligns with common understanding in previous research. Regarding moderating variables, this study's results show that gender and WeChat usage experience do not significantly moderate the path between perceived usefulness and usage intention. Statistical analysis of survey data provides the following explanations: First, regarding gender, there are no significant differences between male and female elderly reader groups in terms of user volume or usage frequency, so gender does not produce significant differences in how perceived usefulness affects usage intention. Second, regardless of their level of WeChat usage experience, elderly teachers' overall purpose is to obtain more convenient and efficient university library services, so the amount of experience does not significantly affect the path between perceived usefulness and usage intention. Finally, since elderly teachers' purposes for using WeChat public platforms tend to be consistent, the age moderating variable also does not significantly affect this path.

(2) Perceived Ease of Use Does Not Significantly Affect Elderly

Teachers' Usage Intention. Despite positive correlations in relevant paths, the effect does not reach a significant level. This can be explained by: WeChat and similar communication software have become commonly used auxiliary tools for elderly teachers in university libraries during the mobile internet era, and all subjects in this study were elderly teachers who had used university library WeChat public platforms and thus had some WeChat usage experience. Therefore, these teachers would not reduce their usage intention due to confusion or doubts about WeChat operations. Regarding moderating variables, gender and experience do not significantly moderate the path between perceived ease of use and usage intention. This result is inconsistent with previous research [15] and can be explained by: WeChat public platforms, as emerging service tools of recent years, are convenient to use and have broad coverage, suitable for all ages, so neither elderly female readers nor elderly teachers with less information service experience feel that the platform is difficult to use. Additionally, elderly teachers have more abundant reading time and are typically more patient than young and middle-aged readers, thus investing more time in learning complex and detailed operations on university library WeChat public platforms and becoming more proficient. Therefore, the effects of gender and experience moderating variables are not significant. However, this study proves that the age moderating variable has a significant positive effect on the path between perceived ease of use and usage intention: when older readers find university library WeChat public platforms easy to use, their usage intention will increase to a certain extent.

(3) Group Influence Significantly Positively Affects Elderly Teachers' Usage Intention. When the group environment (such as reading circles, relatives and friends, online media, etc.) holds a positive attitude toward university library WeChat public platforms, elderly teachers' usage intention will be strengthened. Regarding gender and age moderating variables, this study found they do not significantly affect the path between group influence and usage intention. This can be explained by: WeChat public platforms, as an extension of group services on social media, have large beneficiary coverage that indiscriminately reaches elderly male and female readers of all ages, so these two moderating variables do not have significant effects here. However, this study proves that WeChat usage experience has a significant reverse moderating effect on this path: elderly teachers with less WeChat usage experience have usage intention more easily influenced by surrounding groups, mainly because those with less experience lack confidence in their ability to skillfully operate university library WeChat public platforms and are more susceptible to influence from surrounding groups and environments.

(4) Physiological Function Significantly Negatively Affects Elderly Teachers' Usage Intention. This study's results show that the stronger elderly teachers' perception of physiological function impact, the lower their usage intention, particularly among age-sensitive teachers. Conversely, "age-defying" elderly teachers have higher usage intention. Testing shows that the gender moderating variable has a significant reverse effect on the path between physiological

function and usage intention. Combined with survey results, the explanation is: elderly male readers perceive aging more strongly than females, so their usage intention is more easily affected by physiological changes. On the other hand, age and experience moderating variables do not significantly affect this path, which can be explained by: as Chinese people's living standards improve, physiological function is no longer simply equated with age; meanwhile, as living and health standards for elderly people continue to improve, elderly teachers' information application skills have also advanced rapidly, enabling them to use university library WeChat public platforms relatively freely. Therefore, these two moderating variables do not significantly affect this path.

In summary, perceived usefulness, group influence, and physiological function significantly affect elderly teachers' intention to use university library WeChat public platforms, with perceived usefulness having the greatest impact. Given that elderly teachers have become one of the most important service targets for university library WeChat public platforms, this study recommends that university library IT departments fully consider elderly teachers' actual needs and age-related physiological characteristics in platform design and implementation, establishing an easy-to-use and practical information service environment that continuously improves the practicality and coverage of WeChat public platforms. For example, providing personalized common resource navigation for elderly teachers and offering faster voice-based book review exchange windows for elderly teacher groups. This study found that physiological function degradation affects elderly teachers', particularly elderly male teachers', intention to use university library WeChat public platforms. Therefore, relevant departments should thoroughly research elderly teachers' needs for platform operation simplicity and convenience, using these needs as fundamental basis for platform optimization and improvement. Examples include providing reading magnifier functions for visually impaired readers and offering one-click consultation shortcuts specifically for elderly teachers to meet their growing demands for university library services. Additionally, although perceived ease of use does not have a significant effect, this does not mean that the ease of use of university library WeChat public platforms is already perfect and fully meets all elderly teachers' needs. University libraries should continuously develop more simple, easy-to-use, and convenient service modules on the existing foundation to attract more elderly teachers to use WeChat public platforms and further expand the coverage of university library information services.

References

- [1] Chen Yanwei. Research on Public Library Services for Elderly Readers in the Pearl River Delta Region[J]. *Library Research*, 2017(1): 103-107.
- [2] Deng Yongqiu, Liu Hongyi. Practice and Enlightenment of Elderly Reading Promotion in Japanese Libraries[J]. *Library Research and Work*, 2017(2): 52-55.
- [3] Chen Xi. Thoughts on Public Library Micro-Services for Elderly Readers[J].

Library Theory and Practice, 2016(4): 46-48.

- [4] Yang Yujuan. Analysis of Current WeChat Reading Status of Elderly Readers in Jiangsu in the Digital Reading Era[J]. Henan Library Science, 2017(4): 91-92.
- [5] Li Jiaying, Wang Xiwei, Li Shimeng, et al. Research on Influencing Factors of Elderly Users' WeChat Usage Behavior from an Information Ecology Perspective[J]. Library and Information Service, 2017, 61(15): 25-33.
- [6] Xu Zhaoran, Hu An'an, Huang Lihua. Review of Research on Internet Usage Behavior of Elderly People at Home and Abroad[J]. Library and Information Service, 2017, 61(20): 140-148.
- [7] Kathryn Z, Lee R, Kristen P. Library services in the digital age: preliminary findings from three Maryland public libraries[J]. Journal of education for library and information science, 2016, 50(2): 107-114.
- [8] SMARN L T. Elderly behavior of Internet use[J]. Journal of digital information science, 2016, 9(3): 395-400.
- [9] Maria A R J, Begona P P. Elderly persons and internet use[J]. Social science computer review, 2015, 31(4): 389-403.
- [10] Friederike B, Philipp B. Online support for the elderly? Why public libraries should consider... [J]. Cypriot journal of educational sciences, 2015, 10(3): 182-191.
- [11] Hayar B, Sibebe K. A review on internet use and quality of life of the elderly[J]. Procedia computer science, 2016, 98(3): 395-400.
- [12] Janne L, Kai K. Elderly people and emerging threats of the Internet and new media[J]. Journal of multi-media, 2016, 35(8): 13-22.
- [13] Ryu M H, Seongscheol K, Euehun L. Understanding the factors affecting online elderly user's participation in video UCC services[J]. Computers in human behavior, 2009, 25(3): 619-632.
- [14] David P, Serenity P, Box. Services to older adults: preliminary findings from three Maryland public libraries[J]. Journal of education for library and information science, 2016, 50(2): 107-114.
- [15] Liyanagunawardena T R. Elderly learners and massive open online courses: a review[J]. Journal of medical internet research, 2016, 18(1): 1-10.
- [16] Nelson E, Osaze P I. Elderly people and their information needs[J]. Library philosophy and practice, 2016, 13(2): 1-16.
- [17] Vijeyaluxm S. Students satisfaction with library services in an academic library: special reference to trincomalee campus[C]//The 5th international symposium of emerging trends and challenges in multidisciplinary research. Oluvil: South Eastern University of Sri Lanka Press, 2015: 79-82.
- [18] Ikenwe I J, Idowu A I. Utilization and user satisfaction of public library services in South-West, Nigeria in the 21st century: a survey[J]. International journal of library science, 2014, 3(1): 1-6.
- [19] Laura S, Wolfgang G S. The information service evaluation (ISE) model[J]. Webology, 2014, 11(1): 1-20.
- [20] Wanda W, Alla K, Betsy H. Libraries and librarians: key partners for progress in health literacy research and practice[EB/OL]. [2018-03-05]. <https://content.iospress.com/download/information-services-and->

use/isu821?id=information-services-and-use%2Fisu821.

[21] Justina N E, Charles O O, Chidinma M N. Users' perception of the facilities, resources and services of the mtnd digital library at the University of Nigeria, Nsukka[J]. Library philosophy and practice, 2016(4): 1-24.

Author Contributions

Wang Zheng: Proposed model structure, collected data, validated research hypotheses, and wrote Sections 2, 3, 4, and 5 of the paper.

Liu Shuai: Wrote Sections 1 and 6 of the paper and created figures and tables.

Note: Figure translations are in progress. See original paper for figures.

Source: ChinaXiv — Machine translation. Verify with original.