User Switching Behavior on Mobile Digital Reading Platforms: Postprint

Authors: Liang Shaobo, Li Jinling

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Abstract

[目的/意义] As China' s mobile digital reading market gradually expands and the user base of commercial digital reading platforms continues to grow, mobile digital libraries are facing an increasing loss of users. This study employs the Push-Pull-Mooring (PPM) theoretical model to investigate the factors influencing users' switching behavior from mobile digital libraries to commercial mobile digital reading platforms. [方法/过程] Through the PPM theoretical model, this study identifies three categories of influencing factors—push, pull, and mooring—that affect users'switching behavior in mobile digital reading platforms, proposes research hypotheses, constructs a theoretical model, and collects data via questionnaire surveys to validate the proposed hypotheses. [结果/结论] The findings indicate that regarding push factors, users' dissatisfaction with information quality, system quality, and service quality positively influences their intention to switch to mobile digital reading platforms; regarding pull factors, perceived ease of use and network obligation significantly and positively affect users' switching intention; and users' switching intention significantly and positively influences their actual switching behavior. Based on these results, recommendations for the improvement and development of mobile digital libraries are provided from three perspectives: content, system, and service.

Full Text

Abstract

Purpose/Significance
China' s mobile digital reading market has been gradually expanding, with the user base of commercial digital reading platforms growing continuously. Faced with the increasing loss of users from mobile digital libraries, this study adopts the PPM theoretical model to explore the influencing factors of users' switching from mobile digital libraries to commercial mobile digital reading platforms.

Method/Process
Through the PPM theoretical model, this study identifies three categories of influencing factors on users' switching behavior in mobile digital reading platforms: push factors, pull factors, and mooring factors. Research hypotheses are proposed and a theoretical model is constructed. Data were collected through questionnaire surveys to verify the proposed hypotheses.

Result/Conclusion
The findings reveal that in terms of push factors, users' dissatisfaction with information quality, system quality, and service quality positively influences their switching intention to mobile digital reading platforms. Regarding pull factors, perceived ease of use and network obligation significantly and positively affect users' switching intention. Users' switching intention, in turn, significantly and positively influences their switching behavior. Based on these results, suggestions for improving and developing mobile digital libraries are provided from three aspects: content, system, and service.

Keywords: digital reading; mobile digital reading; PPM model; user switching behavior
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Introduction

The rapid development of mobile internet and the continuous proliferation of smartphones and mobile applications (hereinafter referred to as APPs) have made mobile digital reading one of the mainstream reading formats, with mobile digital reading APPs becoming an important channel for Chinese netizens' reading. Mobile digital reading refers to the process of obtaining digital information through wired or wireless means using mobile terminal devices [1]. According to statistics, the penetration rate of digital reading in China has reached 79.3%, with 76.1% of users reading on smartphones [2]. Commercial mobile digital reading platforms are also continuously developing. Data from "China Mobile Reading Market Annual Comprehensive Analysis 2020" shows that China' s digital reading market size has exceeded 20 billion yuan [3], and iResearch Consulting data indicates that China' s digital reading users have surpassed 400 million [4].

This study examines users' behavior of switching from traditional digital library platforms to commercial mobile digital reading APPs in the digital reading environment. Utilizing the "Push-Pull-Mooring (PPM)" theoretical model, it explores the effects of "push factors," "pull factors," and "mooring factors" on user switching behavior. Based on empirical research findings, it proposes optimization strategies for digital libraries to improve mobile digital reading services and enhance reader service quality.

2 Related Concepts and Research

2.1 Related Concepts

Mobile Digital Reading

Mobile digital reading emphasizes the "mobility" of reading devices, particularly with the rapid development of mobile digital reading APPs, which poses challenges to mobile digital libraries' digital reading services and provides users with more choices. In the digital environment, user switching behavior between different platforms has attracted academic attention. For example, Xia Lixin et al. studied users' switching behavior from other mobile music platforms to NetEase Cloud Music [5], while Chen Minghong et al. explored the influencing factors of users switching from computer search to mobile search [6].

The concept of mobile digital reading is included within the broader concept of digital reading. "Digital reading" refers to online or offline reading of digital content such as text, images, and video using digital devices, encompassing both the digitization of reading methods and the digitization of reading content [7-8]. "Mobile digital reading" refers to the activity of reading electronic publications, online literature, and other digital content on mobile devices such as smartphones and tablets using mobile reading APPs or web browsers [1]. Mobile digital reading is characterized by the mobility of reading carriers and the digitization of reading content. In a broad sense, mobile digital reading includes not only text but also images, audio, data, and utilizes emerging information acquisition methods to access and read various types of information [9]. In a narrow sense, mobile digital reading primarily focuses on electronic publications and online literature. According to the 47th "Statistical Report on China' s Internet Development" released by CNNIC, mobile reading dominates digital reading on mobile phones [10].

User Switching Behavior

In sociology, user migration theory is commonly used to study people' s movement between different geographical areas within a specific time frame. In the mobile internet environment, user migration refers to users' switching between different digital products and service platforms, such as abandoning WeChat Pay and switching to Alipay. This behavior of terminating the use of one product or service and switching to another is called user switching behavior [11]. Currently, user switching behavior mainly includes three categories: switching between different media or carriers, switching between different products on the same medium or carrier, and switching between services of the same product on the same medium or carrier [12].

In this paper, mobile digital reading platform switching behavior refers to users abandoning mobile digital libraries and switching to commercial mobile digital reading platforms. This switching behavior emphasizes long-term user behavior rather than short-term behavioral shifts. According to the classification of switching behavior, this study belongs to user switching of the same product on the same medium or carrier.

2.2 Related Research

Current research on mobile digital reading is mainly divided into three aspects:
1) Quality evaluation and strategic suggestions for library mobile digital reading services, such as classifying mobile reading services provided by university libraries and proposing strategies for service improvement [13], and developing implementation plans to promote the transformation and upgrading of public libraries' mobile digital reading services [14].
2) Research on mobile digital reading platforms, focusing on satisfaction with services and functions, user experience, and operational strategies of mobile digital reading APPs, such as exploring design concepts of mobile reading APPs from four dimensions of creative experience and content service [15], and analyzing the protection of users' personal information security by mobile reading APPs, revealing numerous risks in the collection and use of personal information [16].
3) Research on users' mobile digital reading behavior, focusing on exploring influencing factors of user behavior [17], mainly concentrating on users' adoption behavior, usage behavior, continuous usage behavior, and exit behavior regarding mobile digital reading platforms and services [18].

In studies on users' adoption behavior of mobile digital reading services, Zhang Yaming et al. studied mobile digital reading APPs from the perspective of user adoption behavior and found that perceived ease of use and perceived usefulness can help improve user adoption rates [19]. Xu Kaiying et al. analyzed library mobile reading services from the perspective of user acceptance, constructing an influencing factor model from three aspects of system quality, information quality, and service quality, concluding that information usefulness, perceived ease of use, and internal and external environment quality positively influence user acceptance behavior [20].

In research on users' continuous usage behavior of mobile digital reading platforms, Zhao Wenjun and Ren Jian analyzed users' continuous usage behavior of mobile reading from cognitive, social, and emotional dimensions, identifying perceived usefulness and satisfaction as the main influencing factors [21]. Li Junjun and Ye Fengyun studied user experience behavior in mobile reading, analyzing the relationship between user experience and continuous usage from three stages: decision-making, interaction, and expectation [22]. Other scholars have studied users' exit (abandonment) behavior on mobile digital reading platforms, finding that dissatisfaction with system quality and information quality are the main factors affecting users' intention to exit mobile reading applications [23].

Research on user switching behavior mostly focuses on switching under the same medium, such as K. Wu et al.' s study on influencing factors of users' switching behavior between different cloud storage platforms [24], as well as studies in mobile instant messaging [25], social media [26-27], mobile music platforms [5], mobile payment platforms [28], short video platforms [29], and knowledge

Q&A platforms [30]. However, research on user switching behavior under the same medium in the mobile digital reading field is limited. Current research on user switching behavior mainly focuses on switching between different media and carriers, such as Xu Xiaojuan and Sun Xiaoling et al.' s study on users' switching behavior from traditional libraries to digital libraries [31]. Chen Yu and Zhu Yunqin studied influencing factors of users' switching behavior from paper reading to mobile reading, finding that price, convenience, habit, switching costs, perceived privacy risk, network obligation, and social and entertainment needs affect users' switching intention [32].

Overall, current research on user behavior switching in digital services has attracted scholars' attention, focusing on users' switching intention and its influencing factors, with more attention paid to specific platform switching behaviors, such as between different social media platforms. Through such research, the mechanism of user behavior switching can be understood, effectively revealing user behavior motivations and improving digital service quality.

3 Research Hypotheses and Theoretical Model

3.1 PPM Theoretical Model

The "PPM model," full name "Push-Pull-Mooring Model" ("Push-Pull-Mooring Model"), was first applied by H. S. Bansal to explain consumer switching behavior, in which three factors influencing switching behavior are: push factors, pull factors, and mooring factors [33]. Push factors refer to factors that drive population migration out of the original residence, i.e., negative factors from the original place [34]. Pull factors refer to factors that attract population to the destination, i.e., positive factors from the destination [34]. Mooring factors refer to factors that hinder population migration in personal or social contexts [33].

Information behavior scholars have used the PPM theoretical model to study user switching intention and behavior in different contexts. Y. Sun et al. explored influencing factors of user switching between mobile instant messaging platforms [25]. Wei Xiao analyzed users' switching intention and influencing factors for mobile payment [28].

In this paper, push factors refer to factors that reduce users' usage of mobile digital libraries. Pull factors refer to factors that attract users to commercial mobile digital reading platforms. Mooring factors refer to factors that promote users' continued use of mobile digital libraries and hinder their use of commercial mobile digital reading platforms.

3.2 Research Hypotheses and Model

This study adopts the PPM theoretical model to construct a research model from two dimensions: the influence of push, pull, and mooring factors on switching

intention, and the influence of switching intention on switching behavior, to investigate users' switching behavior on mobile digital reading platforms.

3.2.1 Push Factors Dissatisfaction is typically the main push factor affecting user switching behavior. Existing research shows a positive correlation between satisfaction and usage intention, with user satisfaction affecting continuous usage behavior [18, 35]. Dissatisfaction positively influences user switching intention. Y. L. Wu et al. found that higher satisfaction reduces switching in their study of social network users [36]. Li Linhua found that mobile digital libraries have deficiencies in content completeness, update timeliness, interface friendliness, system openness, personalized recommendations, and resource accessibility [37]. These deficiencies in mobile digital library services cause users to switch due to dissatisfaction.

Information quality is reflected in information accuracy, completeness, timeliness, customization, and presentation format [40], with deficiencies mainly manifested as few resource types, small resource scale, insufficient characteristic resources, and outdated information. System quality includes system openness, reliability, access convenience, response time, and system flexibility [40], with deficiencies mainly manifested as restricted system access, inadequate reading settings, and poor system response. Service quality mainly includes personalized recommendations, user personalization settings, and user reading socialization needs [35], with deficiencies mainly manifested as lack of personalized and social platform construction.

Based on the above analysis, this study treats information quality dissatisfaction, system quality dissatisfaction, and service quality dissatisfaction as push factors influencing mobile digital reading platform user switching behavior. The following hypotheses are proposed:

H1: Information quality dissatisfaction positively influences users' switching intention.
H2: System quality dissatisfaction positively influences users' switching intention.
H3: Service quality dissatisfaction positively influences users' switching intention.

3.2.2 Pull Factors (1) Perceived Usefulness and Perceived Ease of Use

The Technology Acceptance Model suggests that usage cognition influences usage intention, with perceived usefulness and perceived ease of use being the two main factors affecting cognition [41], which have reference significance in predicting user acceptance of information systems. Perceived usefulness refers to users' cognition of how much using the system can improve work and study performance, while perceived ease of use refers to users' perception of how difficult it is to use the system platform.

In the mobile digital reading field, Zhao Wenjun et al. found that perceived usefulness significantly influences users' continuous usage behavior of mobile reading services [21], and Xu Kaiying et al. found that perceived ease of use and perceived usefulness significantly influence user acceptance behavior [20]. Meanwhile, perceived ease of use has a positive influence on perceived usefulness, perceived usefulness has a positive influence on attitude toward mobile reading, and attitude has a significant positive influence on mobile reading usage intention [42]. In user switching behavior research based on the PPM model, perceived usefulness and perceived ease of use are also widely used as pull factors. For example, Zhou Xiang found that perceived usefulness is a significant factor affecting user switching behavior [26]. In short video platform user switching behavior research, Ren Fen found that perceived usefulness and perceived ease of use positively influence users' switching behavior [29].

Based on existing research, this study treats perceived usefulness and perceived ease of use as pull factors of user switching behavior and proposes the following hypotheses:

H4: Perceived usefulness positively influences users' switching intention.
H5: Perceived ease of use positively influences users' switching intention.

(2) Network Obligation
Network obligation refers to the influence of individuals' relationships with others on their decision-making behavior, i.e., the positive information influence from users who have already switched causes users who have not yet switched to develop switching intention and behavior as information accumulates [43]. Network obligation reflects the importance of social relationships in user switching behavior.

In the mobile digital reading era, social reading has become the main mode of digital reading, forming an "interactive, relational, and re-tribalized information dissemination method" [44]. Chen Ying et al. explored the influence of socialization on digital reading from four dimensions: motivational sociality, behavioral interactivity, emotional sharing, and diversified experience [45]. Social factors directly and indirectly influence user usage behavior [46], and others' decision-making behavior can influence individuals' decisions through effective information dissemination in social networks [43]. When others with social relationships with the user choose a certain product or service, it also affects the user' s switching behavior. Therefore, this study treats social network obligation as a pull factor and proposes the following hypothesis:

H6: Network obligation positively influences users' switching intention.

3.2.3 Mooring Factors Switching cost promotes users' continued use of original products or services and is one of the main factors hindering user switching behavior. In this paper, switching cost refers to users' perceived cost of switching from mobile digital libraries to commercial mobile digital reading platforms during their use of digital reading APPs. M. A. Jones et al. constructed switching

costs, dividing them into performance loss cost, uncertainty cost, sunk cost, establishment cost, pre-switching search and evaluation cost, and post-switching behavior and cognitive cost [47]. Additionally, I. C. Chang' s study on user switching behavior on social networking sites included not only sunk costs and establishment costs but also continuity costs [48].

There are various classifications of switching costs. T. A. Burnham et al. summarized eight types of switching costs, mainly dividing them into three types: procedural switching costs, financial switching costs, and relational switching costs [49].

Users' switching behavior in mobile digital reading platforms also involves these three types of switching costs. On one hand, users need to learn new reading platform system operations; on the other hand, users face the loss of data information and interpersonal relationships from the original platform, as well as membership and paid reading issues on commercial mobile digital reading platforms.

Procedural switching costs include learning costs, evaluation costs, establishment costs, and economic risks [49]. The procedural switching cost of digital reading platforms mainly refers to the time and energy costs related to procedural system operations when switching from digital libraries to commercial mobile digital reading platforms. Financial switching costs include the loss of originally continuously obtainable benefits and economic losses caused by switching behavior [49]. In the context of mobile digital reading, financial switching costs refer to users needing to purchase memberships on commercial mobile digital reading platforms, while mobile digital libraries mostly provide free reading services, so users' switching behavior leads to financial costs. Relational switching costs mainly refer to the loss of personal relationships and brand image on the original platform [49]. The more costs users pay for switching behavior, the more willing they are to maintain current products or services [50].

Based on the above, this study explores the influence of switching costs on user switching behavior from three aspects: procedural switching cost, financial switching cost, and relational switching cost, and proposes the following hypotheses:

H7: Procedural switching cost negatively influences users' switching intention.
H8: Financial switching cost negatively influences users' switching intention.
H9: Relational switching cost negatively influences users' switching intention.

3.2.4 Switching Intention and Switching Behavior Switching intention refers to users' intention to switch from original products or services to alternative products or services, while switching behavior refers to the actual act of switching. In the switching process, users first develop switching intention and then perform switching behavior. A. Bhattacherjee et al. proved that switching intention positively influences switching behavior for browser users [51]. Xia Lixin et al. concluded that switching intention has a significant positive influ-

ence on switching behavior in their analysis of mobile music platform users [5]. Therefore, this study proposes the following hypothesis:

H10: Users' switching intention regarding mobile digital reading platforms significantly and positively influences their switching behavior.

In summary, the theoretical model proposed in this study is shown in Figure 1 [Figure 1: see original paper].

4 Data Collection and Analysis

4.1 Questionnaire Design and Data Collection

Through questionnaire testing and revision, the final formal questionnaire was determined. The questionnaire consists of five parts: basic information, push factors, pull factors, mooring factors, and switching process. The scale items used a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The measurement items involved in the questionnaire are shown in Table 1 .

4.2 Questionnaire Sample

The online questionnaire was distributed through the Wenjuanxing platform, with invitations sent via WeChat, QQ, and other social platforms, and samples were screened through specific questions. This study collected 210 questionnaires. Samples with excessively short completion times, excessively repetitive answers, and those using only one mobile digital reading platform were excluded, resulting in 183 valid questionnaires. Approximately 88% of respondents had used two or more mobile digital reading platforms. The basic sample information is shown in Table 2 .

4.3 Reliability and Validity Analysis

This study used Cronbach' s Alpha coefficient to analyze questionnaire reliability. Data were processed using SPSS, with results showing a Cronbach' s Alpha coefficient of approximately 0.89 (>0.7), indicating high reliability. Factor analysis was used to test validity, with a KMO coefficient of 0.873 (>0.7) and Bartlett' s test of sphericity significance less than 0.001, indicating suitability for factor analysis. Using principal component analysis, six factors with eigenvalues greater than 1 were extracted, with a cumulative variance of 61.4%. To ensure questionnaire reliability and validity, some items were deleted or modified.

Using SmartPLS with the PLS algorithm, the composite reliability and average variance extracted (AVE) for each variable were obtained, as shown in Table 3 . All variables' composite reliability values were greater than 0.7, indicating good composite reliability and high internal consistency. All AVE values were greater than 0.5, indicating good convergent validity.

The discriminant validity results are shown in Table 4 . The square root of each factor' s AVE value was greater than the correlation coefficients between factors,

indicating good discriminant validity.

5 Results Analysis

5.1 Hypothesis Verification Results

This study used SmartPLS for data analysis to verify research hypotheses. Based on model test results, H1, H2, H3, H5, H6, and H10 were supported, with H1, H2, and H3 significant at $P < 0.05$, and H5, H6, and H10 significant at $P < 0.001$. Other hypotheses had P values greater than 0.05 and were not supported.

Based on the verification results, the model was revised by removing unsupported latent variables. The revised model path diagram is shown in Figure 2 [Figure 2: see original paper]. R^2 values were used to judge model explanatory power, with calculated R^2 values for switching intention and switching behavior being 60.5% and 54.9%, respectively, indicating high explained variance and good model explanatory power for user switching behavior.

5.2 Analysis of Research Hypotheses

5.2.1 Relationship Between Switching Intention and Switching Behavior

Based on model test results, the path coefficient between users' switching intention and switching behavior regarding mobile digital reading platforms is 0.741, significant at $P < 0.001$. Users' switching intention significantly and positively influences switching behavior. Switching intention and switching behavior are positively correlated; that is, the stronger the switching intention, the more likely switching behavior occurs. This conclusion is consistent with previous research findings [51].

5.2.2 Relationship Between Information Quality Dissatisfaction and Switching Intention

According to model test results, the path coefficient between users' information quality dissatisfaction with mobile digital libraries and switching intention is 0.136, significant at $P < 0.05$. Users' information quality dissatisfaction with mobile digital libraries positively influences their switching intention. When users have higher dissatisfaction with information quality, they are more likely to develop switching intention. Therefore, improving information quality satisfaction is crucial for preventing user switching behavior.

5.2.3 Relationship Between System Quality Dissatisfaction and Switching Intention

Test results show that the path coefficient between users' system quality dissatisfaction with mobile digital libraries and switching intention is 0.209, significant at $P < 0.05$, indicating that system quality dissatisfaction positively influences users' switching intention. When users have higher dissatisfaction with system quality, they are more likely to develop switching intention and

choose commercial digital reading APPs. To reduce user loss, mobile digital libraries should improve system quality.

5.2.4 Relationship Between Service Quality Dissatisfaction and Switching Intention

Test results show that the path coefficient between users' service quality dissatisfaction with mobile digital libraries and switching intention is 0.167, significant at $P < 0.05$. Service quality dissatisfaction positively influences users' switching intention. The lack of personalized services and social platform construction promotes users' switching from mobile digital libraries to commercial mobile digital reading platforms. Mobile digital libraries need to consider users' needs and satisfaction with service quality in platform construction.

5.2.5 Relationship Between Perceived Ease of Use and Switching Intention

According to model test results, the path coefficient between perceived ease of use of commercial mobile digital reading platforms and users' switching intention is 0.215, significant at $P < 0.001$. Users' perceived ease of use of commercial digital reading APPs significantly and positively influences their switching intention. The stronger the perceived ease of use, i.e., the easier users believe the commercial platform is to operate, the stronger their switching intention. Simplifying system operation processes and making interactions between users and systems clearer and easier to understand are important considerations for mobile digital libraries in system construction.

5.2.6 Relationship Between Network Obligation and Switching Intention

According to model test results, the path coefficient between network obligation of commercial mobile digital reading platforms and users' switching intention is 0.225, significant at $P < 0.001$. Users' perception of network obligation regarding commercial platforms significantly and positively influences their switching intention. The more significant the network obligation, the greater the influence of other individuals or groups on individual decision-making. When friends and relatives hold positive attitudes and recommendation intentions toward commercial platforms, users are more likely to develop switching intention and tend to use commercial mobile digital reading platforms.

5.2.7 Analysis of Unsupported Hypotheses

Model test results show that perceived usefulness does not positively influence users' switching intention. The main reason is that commercial mobile digital platforms and mobile digital libraries have overlapping content services but also their own unique features. Commercial platforms far exceed mobile digital libraries in entertainment reading, but mobile digital libraries store professional content that commercial platforms lack.

For procedural switching costs, mobile digital libraries still follow conventional application design patterns that suit most users' habits, so users do not experience difficulties or spend excessive time using them. Regarding financial

switching costs, commercial platforms also offer free reading models, and with the development of knowledge payment and users' increasing payment awareness, paying for needed content poses little barrier to users. For relational switching costs, the social platform construction of mobile digital libraries remains to be improved, making it difficult for users to accumulate rich interpersonal resources, so switching behavior does not cause significant interpersonal relationship loss, thus having minimal impact on hindering user switching behavior.

6 Discussion and Implications

This study investigated users' switching behavior from mobile digital libraries to commercial mobile digital reading platforms, introducing factors such as information quality dissatisfaction, system quality dissatisfaction, service quality dissatisfaction, perceived ease of use, and network obligation to construct and verify a theoretical model. Based on the analysis results, the following recommendations are proposed for the development of mobile digital libraries:

6.1 Build High-Quality Information Resources and Create Diversified Digital Content

Mobile digital libraries' own digital resources need to be enriched in types, increased in quantity, and improved in update speed. Commercial mobile digital reading platforms continuously improve their content construction, including not only online literature but also cooperating with formal publishing institutions to provide electronic versions of published books. Some resources in mobile digital libraries cannot provide full-text reading services and suffer from outdated resources. Moreover, commercial platforms emphasize reader-generated content such as book reviews, comments, ratings, and reader Q&A. Therefore, mobile digital libraries should strengthen connections with publishing institutions, timely update digital resources within the platform, screen and recommend online original resources, and focus on both reader knowledge production and expert knowledge production to innovate digital resource construction forms.

6.2 Enhance System Openness and Stability, Improve Interaction Design Friendliness

Mobile digital libraries' systems need improvement in stability and openness, with issues such as inability to log in, complex registration procedures, regional restrictions for library card processing, and long resource loading times. In contrast, commercial mobile digital reading platforms have simple operations, convenient registration, and more stable and smooth systems without regional restrictions. Additionally, mobile digital platforms need optimization in reading interface design, such as inability to adjust page layout and system fonts. Mobile digital libraries should, on one hand, improve platform system construction, enhance system stability and response speed, and simplify login and registration

processes with multiple options. On the other hand, they should enrich reading interface design by adding features such as eye protection mode, background color, page-turning methods, and auxiliary tools like dictionary lookup and translation to enhance user reading experience.

6.3 Strengthen Personalized Recommendations and Build Social Platforms

Commercial mobile digital reading platforms emphasize group services, advocate social reading, and build social networks between readers and between readers and authors to increase reading viscosity. Mobile digital libraries can improve reading platform construction from both personalized and social aspects, such as optimizing resource recommendation algorithms to provide customized resource services for each reader based on user characteristics and social hotspots, improving platform search mechanisms to construct knowledge networks between resources, and introducing associations between user accounts and social application accounts to provide reading sharing and communication social functions and build reading communities. Furthermore, the internet amplifies the influence of social networks on individual choices and decisions, so mobile digital libraries need to enhance platform promotion and expand their influence.

This study has certain limitations, such as the need to enrich the total sample size, further optimize sample representativeness and universality, and improve gender distribution. Additionally, further exploration of the cooperative and competitive relationships between mobile digital libraries and commercial reading platforms is needed to enhance the specificity of research countermeasures.

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Author Contributions

Liang Shaobo: Research design, paper writing and revision.
Li Jinling: Initial draft writing, data collection and analysis.

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