

Research on Factors Influencing Knowledge Service Quality in E-Government Portals Based on Service Encounters (Postprint)

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Abstract

[Purpose/Significance] From the perspective of user perception, this study constructs a model of influencing factors for knowledge service quality in e-government portals based on service encounter, thereby laying a foundation for optimizing knowledge service quality in e-government portals. [Method/Process] Through questionnaire surveys, a hypothetical model of influencing factors for knowledge service encounter quality in e-government portals is constructed, which is subsequently tested and revised using exploratory factor analysis, followed by a discussion of the revised model. [Results/Conclusion] The study constructs a model of influencing factors for knowledge service encounter quality in e-government portals, providing a comprehensive analysis of the composition of these influencing factors from the user perception perspective.

Full Text

Preamble

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Abstract

[Purpose/Significance] From the perspective of user perception, this study constructs a model of influencing factors for knowledge service quality of e-government portals based on service encounter, laying a foundation for optimizing the knowledge service quality of e-government portals. **[Method/Process]** Through questionnaire surveys, a hypothetical model of influencing factors for knowledge service encounter quality of e-government portals was constructed and tested and revised using exploratory factor analysis. The revised model of influencing factors for knowledge service encounter quality of e-government portals was then discussed. **[Result/Conclusion]** The study constructs a model of influencing factors for knowledge service encounter quality of e-government portals, comprehensively analyzing the composition of these factors from the perspective of user perception.

Classification Number: G203

Keywords: Service encounter; E-government; Knowledge service; Service quality

According to the 41st “Statistical Report on Internet Development in China,” the scale of online government service users in China reached 485 million in 2017, accounting for 62.9% of total internet users. The onlineization of government services in China has accelerated significantly, with notable improvements in citizens’ usage rates for online services. Big data and artificial intelligence technologies continue to integrate with government services, driving them toward greater intelligence, precision, and scientific management [1]. E-government portals primarily provide knowledge services for users’ daily problem-solving, with rapid development in both the breadth and depth of their content and services. The knowledge they provide is simpler and clearer than that from libraries and other institutions, making it easier for users to understand and utilize, and it possesses strong popular science characteristics and direct applicability.

2. Review of Relevant Theory and Practice

2.1 Service Encounter Theory and Application Research

Users increasingly value the service encounter experience in the process of acquiring knowledge. This study employs literature research methods to examine knowledge services on e-government portals, proposes a hypothetical model, and uses exploratory factor analysis from statistical analysis methods to revise the model, finally drawing conclusions based on data analysis results.

Service encounter, in its narrow sense, refers to face-to-face interaction between customers and service personnel [2-4]. Based on the broad range of elements contained in the service process—such as service personnel, service facilities, service atmosphere, and service environment—many scholars including M.R. Solomon et al. [5], G.L. Shostack [6], and Chinese scholar Fan Xiucheng [7] have provided a broad concept of service encounter, arguing that all contact

points in the customer service process belong to the scope of service encounter. In recent years, domestic and international research on service encounter has mainly focused on service encounter theoretical models, applied research, and studies of dyadic interactions between customers and employees. Examples include S.J. Grove and R.P. Fisk's service drama model [8], J.E.G. Bateson's triad model [9], and C. Gronroos's service production system model [10].

With technological advancement and in-depth academic development, the application of service encounter has gradually expanded to telecommunications, logistics, catering, banking, and healthcare sectors. Qiao Ying studied express delivery service satisfaction based on service encounter theory [11]. Zhang Fang conducted in-depth research on the impact of catering service encounter on customer behavioral intention in mobile internet contexts [12]. He Xin examined the effect of customer-perceived compatibility on satisfaction during service encounters [13]. Li Jin analyzed and elaborated on the impact of visual elements of service encounter on service satisfaction and bank market competitiveness, clarifying the process and importance of bank service encounter [14]. Zhang Lei constructed an outpatient satisfaction evaluation system based on service encounter theory [15].

Service quality refers to the sum of characteristics and features that enable a service to meet specified and potential needs—that is, the degree to which service work satisfies the needs of the served. Users' most direct feelings and judgments about e-government portal knowledge service quality come from their experience of all “contact points” in using the portal, such as layout design, logo usage, knowledge presentation methods, and search engines. Direct experience of these “contact points” constitutes users' complete cognition and quality judgment of e-government knowledge service quality. Service encounter is an essential link for users to experience e-government knowledge service quality and the direct source of their quality perception. The service encounter process is central and critical for users to measure e-government knowledge service quality, and these service “contact points” should receive attention in efforts to improve user satisfaction with e-government knowledge services.

Introducing service encounter theory and examining the main influencing factors of e-government portal knowledge service quality at key contact points can better grasp the direction and objectives for improving this quality.

2.2 E-Government Portal Knowledge Service Theory and Practice

Knowledge service is a product of the social networking environment. Research on knowledge services has mainly focused on concepts, models, implementation technologies, and system construction. Zhang Xiaolin believes that knowledge service is based on searching, organizing, and analyzing information and knowledge, as well as sufficient knowledge and capabilities, in a network environment. According to users' problem contexts, it integrates into users' problem-solving processes, proposes services that can effectively support knowledge application

and innovation, and puts forward five knowledge service models from an operational perspective [16]. Sheng Wenlu [17], Chen Yibo [18], and Dong Jide [19] studied design models based on ontological semantic computing and key technologies of knowledge services combining linked data and ontology. Some literature discusses how to achieve knowledge expansion and discovery through data mining using ontologies and thesauri for database integration, thereby constructing knowledge service systems [20]. Knowledge service research has mainly concentrated on library, information, and archival science fields, with fewer studies directly addressing e-government portal knowledge services.

Foreign research on e-government portals has primarily focused on comprehensive analysis of development status and functions, evaluation methods for portal service quality, government website quality and user satisfaction research, and factors influencing citizens' adoption of e-government. Studies on city portal user satisfaction mention that social media integration, complete online services, downloadable form data, search functions, and perceived ease of use affect user satisfaction [21]. Research on government website quality considered website administrators' perspectives and insights [22] rather than focusing solely on user experience. Factors influencing citizens' adoption of e-government include website design, beliefs, website complexity, perceived usefulness, and perceived ease of use [23].

In terms of knowledge service practice, governments increasingly emphasize the construction of e-government portals, employing various technical means such as distributed computing and portal technology to provide problem-oriented knowledge services for users. For example, the U.S. government portal [24] deploys Google Analytics and iPerceptions web analytics software to conduct long-term dynamic monitoring of user access behavior, mine and analyze user needs, and provide integrated medical health knowledge, disaster protection knowledge, and national historical knowledge, as well as links to external institutions such as libraries and museums, enabling users to obtain relevant knowledge services in a one-stop manner to quickly solve practical problems. The UK government website [25] defines itself as the best place to acquire knowledge, providing simpler, clearer knowledge services that help users quickly find information such as legal aid knowledge, environmental protection knowledge, and food safety knowledge. The Canadian federal government website [26] provides skills training and education knowledge, tax knowledge for individuals, businesses, and trusts, and medical insurance knowledge, all of which effectively help users solve specific problems.

Currently, China's e-government portals have not deeply engaged in knowledge services. Only a few government portals can provide some thematic knowledge services for users, such as Shenzhen Government Online [27], which provides medical thematic knowledge on disease prevention and treatment. From the perspective of China's current e-government development process, although the quality of e-government portal construction continues to improve with strong national promotion, insufficient attention has been paid to e-government knowl-

edge services. This study combines service encounter theory to examine the specific factors influencing e-government portal knowledge service quality, providing reference for improving the knowledge service quality of e-government portals.

3. Extraction of Influencing Factors for Knowledge Service Encounter Quality of E-Government Portals

3.1 Initial Acquisition of Influencing Factors

Knowledge service encounter quality of e-government portals refers to the degree to which users feel their needs are met during the process of contacting e-government portal knowledge services at different service encounter points. Based on service encounter theory, combined with relevant literature and the characteristics of e-government portal knowledge services, influencing factors were selected from different service encounter points, ultimately obtaining 23 influencing factors. Their specific meanings are explained in Table 1 .

The factors of layout design, color matching, logo usage, multimedia presentation, and knowledge content arrangement design in Table 1 are included in the visual presentation of knowledge services in the virtual environment of e-government portals. The quality of these designs and presentation methods affects, to a certain extent, the speed and completeness of users' knowledge acquisition. Knowledge service accessibility, knowledge service process simplicity, search engine friendliness, and good knowledge navigation are important components of the knowledge service process. Easy access, good navigation, and friendly search engines on e-government portals can help users easily, simply, and quickly obtain needed knowledge. Their accessibility enables users with different knowledge backgrounds and education levels to equally and easily access knowledge services, giving users a sense of information acquisition fairness. Usefulness, understandability, accuracy, and integration of knowledge mainly reflect knowledge quality. If these aspects are well-developed, users can accurately and quickly obtain high-quality solutions to practical problems, increasing user satisfaction. Knowledge service personalization, humanization, equality, affinity, and pleasantness are key factors in enhancing user experience, particularly humanization and equality. People-oriented service is the core of government management, and the construction of e-government portal knowledge service systems should continue this service philosophy. Equality is mainly reflected in equal access to knowledge services, with portal design and system design embodying people-oriented and equal thinking to facilitate users' equal access to knowledge services.

3.2 Revision of Influencing Factors

A first-round online questionnaire survey was conducted based on the 23 influencing factors in Table 1 from January 24-30, 2018. A total of 149 questionnaires were collected, with questionnaires containing identical answers considered in-

valid and excluded, resulting in 119 valid questionnaires (30 invalid, 79% validity rate). Through open-ended questions in the questionnaire, factors that e-government portal users considered important but were not included in the survey were collected. Responses to open-ended questions included: breadth of knowledge, influence of e-government portal knowledge services among the public, public recognition or satisfaction with e-government portal knowledge services, page cleanliness, timeliness of information updates, and novelty.

After analyzing the open-ended responses, it was found that these answers were essentially the same as the content designed in the first-round questionnaire. Therefore, the influencing factors in Table 1 were retained. This also indicates that the influencing factors in Table 1 fully reflect users' cognition and understanding of factors affecting e-government portal knowledge service encounter quality, demonstrating that e-government portal knowledge services are indeed influenced by the 23 factors in Table 1. This provides the basis and foundation for constructing the hypothetical model of influencing factors for e-government portal knowledge service encounter quality.

4. Construction of the Influencing Factor Model for Knowledge Service Encounter Quality of E-Government Portals

Based on user perception and emotional experience, within the framework of service encounter theory, this study proposes a hypothetical model of influencing factors for knowledge service encounter quality of e-government portals, revises it according to data test results, and deeply analyzes the hierarchical structure and importance of these influencing factors.

4.1 Proposed Hypothetical Model

Based on the influencing factors in Table 1 and their definitions, the 23 observed variables were divided into four dimensions: "Knowledge Service Virtual Environment," "Knowledge Service Process," "Knowledge Quality," and "Knowledge Service Emotional Experience," constructing the hypothetical model of influencing factors for knowledge service encounter quality of e-government portals, as shown in Figure 1 [Figure 1: see original paper].

4.2 Data Collection and Analysis

4.2.1 Data Collection and Organization After analyzing the first-round questionnaire responses, the authors decided to retain the factors extracted in Table 1 to form the final survey questionnaire for collecting data on the hypothetical model. The final questionnaire included two main parts: basic information about respondents and a survey of influencing factors for knowledge service encounter quality of e-government portals based on service encounter theory. The second part contained 23 items, all using a 5-point Likert scale where 1-5 represented increasing degrees of influence. The questionnaire was distributed

starting March 6, 2018, for one week, targeting respondents from various industries as broadly as possible, primarily through online surveys. A total of 223 questionnaires were collected, with 20 invalid questionnaires (identical answers) excluded, resulting in 203 valid questionnaires (91% validity rate), meeting the predetermined sample size.

4.2.2 Sample Analysis For the 203 valid questionnaires, the authors conducted an analysis of respondent characteristics, with results shown in Figure 2 [Figure 2: see original paper].

As shown in Figure 2, the sample characteristic analysis includes four aspects. First, age distribution: the 18-30 age group accounted for the largest proportion at 91.13%. Second, gender distribution showed little difference. Third, occupational distribution: enterprise/company employees accounted for 29.06%, “other” accounted for 8.87%, and proportions of government workers, public institution workers, and entrepreneurs were relatively similar. Fourth, education level: respondents were mainly college students and graduate students, totaling 92.61%, indicating that the surveyed population had good educational backgrounds and information literacy. The wide distribution of age, education level, and occupation (students, enterprise employees, public institution workers, entrepreneurs, etc.) demonstrates that the survey respondents were comprehensive, effectively showing how different users perceive the influence degree of various factors on e-government portal knowledge service quality. The overall sample situation indicates that this survey sample is representative.

4.2.3 Descriptive Statistical Analysis Using SPSS 22.0, the authors conducted statistical analysis on the raw data from 203 valid questionnaires, calculating the mean and standard deviation of each observed variable, as shown in Table 2. Generally, the degree of recognition of each variable’s influence on knowledge service encounter quality is judged by the mean value—the larger the mean, the greater the recognition. The standard deviation reflects the consistency of recognition among different users. Larger standard deviation values indicate greater disagreement among e-government portal users about the influence degree of each factor. Generally, when the standard deviation is less than 1, disagreement is considered small and consistency is high.

As shown in Table 2, among the various influencing factors, color matching had the smallest mean value (3.429), while other factors had mean values greater than 3.429, with more than half exceeding 4, fully indicating that e-government portal users highly recognize the observed variables. Regarding standard deviations, two influencing factors—“knowledge service humanization” and “knowledge service pleasantness”—had standard deviations greater than 1, indicating small differences in user recognition of these factors. Other factors had standard deviations less than 1, showing relatively consistent recognition among e-government portal users of the influencing factors extracted in Table 1. Overall, the extraction of influencing factors is reasonable.

4.3 Data Analysis and Testing

Mathematical analysis and testing of the hypothetical model in Figure 1 primarily employed exploratory factor analysis on the collected raw data. Based on the analysis results, the hypothetical model in Figure 1 was revised to obtain a set of influencing factors for knowledge service encounter quality of e-government portals that better aligns with actual user perception.

4.3.1 Reliability Analysis This study used SPSS 22.0 software and Cronbach's α coefficient to test the reliability and validity of the questionnaire. Larger Cronbach's α coefficient values indicate higher internal consistency among observed variables. The test results are shown in Table 3 .

As shown in Table 3, the Cronbach's α coefficient for the entire scale is 0.937, exceeding the acceptable value of 0.7, indicating high questionnaire reliability and high internal consistency among the influencing factor indicators. This supports proceeding with further analysis of the hypothetical model.

4.3.2 Applicability Analysis Before factor analysis, suitability testing was required. Using SPSS 22.0, the authors employed KMO sample measurement and Bartlett's sphericity test to assess factor analysis suitability, with results shown in Table 4 .

As shown in Table 4, the KMO test value is 0.917, greater than 0.5 and reaching the "good" standard, indicating that common factors exist among variables and factor analysis can be conducted. The approximate chi-square value of Bartlett's sphericity test is 2152.800, with degrees of freedom (df) of 210 and significance level (Sig.) of 0.000, less than 1%, again indicating that the sample data is suitable for factor analysis.

4.3.3 Principal Component Analysis This study used principal component analysis and variance-maximizing orthogonal rotation to extract common factors, using eigenvalues greater than 1 as the criterion. Four common factors were obtained, with Cronbach's α coefficients all greater than 0.7 and cumulative variance explanation of 61.395% (see Table 5), indicating they can adequately represent the original variables.

Based on the rotated component matrix, common factors were identified, yielding the exploratory factor analysis results of observed variables shown in Table 6 . During factor analysis, the influencing factors of knowledge service security and knowledge service interaction smoothness had factor loadings less than 0.5 on all four common factors and were therefore eliminated.

As shown in Table 6, Factor 1 includes eight influencing factors, primarily covering all influencing factor indicators in the knowledge service emotional experience dimension of the hypothetical model, as well as three indicators from the knowledge service process dimension: knowledge visualization, knowledge understandability, and knowledge integration. This differs somewhat from the

hypothetical model. Knowledge understandability and knowledge integration loaded on both Factor 1 and Factor 2. After analysis, these two factors were categorized under Factor 2, leaving six variables on Factor 1. Knowledge visualization presents information more vividly and intuitively than language description. Using visualization technology can transform abstract matters or processes into graphics and images that are easier for e-government portal users to accept and understand, reducing the difficulty of knowledge comprehension. The development and application of visualization technology have gradually changed e-government portal users' cognitive methods and depth, becoming an increasingly indispensable means for e-government portals to provide knowledge services. E-government portal service visualization is an important way to enhance user service experience, and knowledge visualization is essentially the visualization of knowledge service—an important factor affecting users' sensory experience of e-government portals. Therefore, this factor was renamed “knowledge service visualization.” The eight influencing factors aggregated on Factor 1 are all related to personal emotion, indicating that e-government portal users attach great importance to subjective emotional experience during knowledge service reception and that emotional experience has the greatest impact on users' perception of knowledge service quality. Therefore, Factor 1 was renamed “knowledge service sensory and emotional experience.”

Factor 2 includes seven variables (after assigning knowledge understandability and knowledge integration to this factor and logo usage to Factor 4), covering all indicators in the knowledge quality dimension of the hypothetical model (except knowledge visualization) and knowledge content arrangement design in the knowledge service virtual environment dimension. Knowledge content arrangement design affects the sequential presentation of knowledge on e-government portals, thereby influencing users' perception of acquired knowledge quality. Therefore, based on user experience, knowledge content arrangement design reflects the sequential presentation of knowledge and was renamed “knowledge sequencing” under the knowledge quality dimension. From the user experience perspective, knowledge service accessibility more intuitively reflects the ease of obtaining knowledge, so it was renamed “knowledge accessibility.” Although Factor 2 differs slightly from the initial hypothetical model, this aggregation is based on e-government portal users' specific perceptions during knowledge service reception, revealing to some extent that different types of users hold different attitudes toward the importance of various influencing factor indicators.

Four variables loaded on Factor 3, mainly including knowledge service process simplicity, search engine friendliness, good knowledge navigation, and knowledge service efficiency in the knowledge service process dimension (knowledge service security and knowledge service interaction smoothness had loadings less than 0.5 and were eliminated). Therefore, Factor 3 was named “knowledge service process.”

Four variables loaded on Factor 4, including layout design, color matching, logo usage, and multimedia presentation in the knowledge service environment.

Therefore, Factor 4 was named “knowledge service virtual environment.”

Based on the above analysis and revision, the final model includes four major influencing factors for knowledge service encounter quality of e-government portals, as shown in Figure 3 [Figure 3: see original paper].

As shown in Figure 3, the influencing factor model for knowledge service encounter quality of e-government portals is divided into four dimensions, each reflected through multiple observed variables. The revised four dimensions were then tested for reliability and validity, with results shown in Table 7.

As shown in Table 7, the α coefficients of each dimension exceed 0.7, indicating high consistency and stability among the influencing factors within each dimension and good reliability. The KMO values of all four dimensions are greater than 0.7, indicating that the observed variables in each dimension adequately reflect factor characteristics. Through this analysis, the revised influencing factor model for knowledge service encounter quality of e-government portals is considered reasonable.

5. Discussion and Conclusion

This study combines service encounter theory with actual data investigation and analysis to construct a hypothetical model of influencing factors for knowledge service encounter quality of e-government portals, comprehensively and objectively analyzing and discussing the relevant factors. The following conclusions are drawn:

- (1) Among the many factors influencing knowledge service encounter quality of e-government portals, knowledge service sensory and emotional experience is the most important factor perceived by users. This dimension mainly includes knowledge service humanization, personalization, equality, affinity, pleasantness, and visualization. Among these, knowledge service equality has the highest factor loading in this dimension, indicating that users attach great importance to equality in knowledge service. Second, knowledge service humanization is also highly valued by users. The humanization concept applies in many fields, and users' emphasis on humanization in e-government portal knowledge services reflects their hope that portal design conforms to personal habits, satisfying both functional and psychological needs. According to factor analysis results, knowledge service affinity, pleasantness, and personalization are also important components perceived by users, indicating that users value personal feelings during knowledge service reception. Additionally, knowledge service visualization is also important. The maturity of visualization technology application affects users' cognitive depth and thus their emotional experience of knowledge service encounter.
- (2) Knowledge quality is the second important aspect influencing knowledge service encounter quality of e-government portals. Exploratory factor anal-

ysis results show that knowledge sequencing, timeliness, accessibility, and accuracy all have factor loadings greater than 0.6, indicating that users consider these four factors important in the knowledge quality dimension. This shows that knowledge sequencing and accessibility determine whether users can comprehensively obtain portal knowledge; timeliness and accuracy affect whether users can obtain needed knowledge promptly and accurately; and understandability, usefulness, and integration greatly influence the quality of knowledge services users receive on the portal. This reflects that besides emphasizing sensory and emotional experience, users also value whether knowledge can be obtained accurately and quickly and the quality of acquired knowledge.

- (3) Knowledge service process also influences users' perception of knowledge service encounter quality. Knowledge service process is an indispensable link in providing knowledge services and an important factor in realizing the value of e-government portal knowledge services. This dimension includes search engine friendliness, knowledge service process simplicity, good knowledge navigation, and knowledge service efficiency. Search engine friendliness is an important step perceived by users and a crucial consideration for e-government portal design improvement. Regardless of how other functional modules are adjusted, search engine friendliness should always be maintained and upgraded. Knowledge service process simplicity and good knowledge navigation meet users' needs to find required information as quickly and simply as possible, making them important components of users' quality perception. Friendly search engines, simple service processes, and good knowledge navigation greatly improve knowledge service efficiency, which is also an important factor users perceive.
- (4) Knowledge service virtual environment is another important factor affecting users' perception of knowledge service encounter quality, mainly including color matching, layout design, logo usage, and multimedia presentation. Color matching and layout design have factor loadings of 0.798 and 0.713, respectively. Color matching has the highest factor loading among all influencing factors, consistent with experimental psychologist Treichler's finding that "83% of information humans receive is obtained through vision." This indicates that users consider interface color matching the most important factor affecting knowledge service encounter quality. Layout design also impacts users' visual experience, and unreasonable layout creates uncomfortable feelings, making it another important perceived factor. Although logo usage and multimedia presentation have lower factor loadings than color matching and layout design, they still hold certain importance in users' perception of knowledge service encounter quality.

Currently, research on website knowledge (information) services mainly focuses on archive and library websites, with research results concentrated on status studies, service models, information organization models, service quality eval-

uation, service capability evaluation, and influencing factor studies. Research specifically targeting e-government portal knowledge services is limited. This study introduces service encounter theory, extracts influencing factors at key e-government portal knowledge service contact points, and determines the influence degree of each factor based on questionnaire analysis results, helping e-government portals more precisely improve and enhance their knowledge services at various service contact points to increase user satisfaction.

References

- [1] China Internet Network Information Center (CNNIC). 41st Statistical Report on Internet Development in China [EB/OL]. [2018-03-28]. http://www.cnnic.net.cn/hlw_fzyj/hlw_xzbg/hlw_tjbjg/201803/t20180305_70249.htm.
- [2] CZUPIEL J A. The service encounter: managing employee/customer interaction in service businesses [M]. Lexington: Lexington Books, 1985.
- [3] SURPRENANT C F, SOLOMON M R. Predictability and personalization in the service encounter [J]. Journal of marketing, 1987, 51(2): 86-96.
- [4] GUTER B A. The dynamics of service: reflection on the changing nature of customer/provider interactions [M]. San Francisco: Joddey-Bass Publisher, 1995.
- [5] SOLOMON M R, SURPRENANT C F, CZUPIEL J A, et al. A role theory perspective on dyadic interactions: the service encounter [J]. Journal of marketing, 1985, 49(1): 99-111.
- [6] SHOSTACK G L. Planning the service encounter [J]. The service encounter, 1985(3): 243-254.
- [7] FAN Xiucheng. Service quality management: interaction process and interaction quality [J]. Nankai Business Review, 1999(1): 8-12, 23.
- [8] GROVES J, FISK R P. The dramaturgy of service exchange: an analytical framework for services marketing [M]//LEONARD B L. Emerging perspectives on services marketing. Decatur: Marketing Classics Press, 1983: 45-49.
- [9] BATESON J E G. Perceived control and the service encounter [M]. Lexington: Lexington Books, 1985.
- [10] GRONROOS C. Service management and marketing [M]. Lexington: Lexington Books, 1990.
- [11] QIAO Ying. Research on express delivery service satisfaction based on service encounter theory [D]. Taiyuan: Taiyuan University of Technology, 2016.
- [12] ZHANG Fang. Research on the impact of catering service encounter on customer behavioral intention in mobile internet context [D]. Quanzhou: Huaqiao University, 2014.

- [13] HE Xin. Research on the impact of customer-perceived compatibility on satisfaction in restaurant service encounters [D]. Hangzhou: Zhejiang University, 2015.
- [14] LI Jin. Research on service encounter of Chinese commercial banks [D]. Tianjin: Tianjin University of Finance and Economics, 2012.
- [15] ZHANG Lei. Construction of an outpatient satisfaction evaluation system based on service encounter theory [D]. Nanjing: Nanjing University of Aeronautics and Astronautics, 2015.
- [16] ZHANG Xiaolin. Toward knowledge services: finding the growth point for library and information work in the new century [J]. Journal of Library Science in China, 2000(5): 32-37.
- [17] SHENG Wenlu. Research on key technologies of knowledge service for product design process [D]. Hangzhou: Zhejiang University, 2009.
- [18] CHEN Yibo. Research on key technologies of personalized knowledge service based on linked data and user ontology [D]. Wuhan: Wuhan University, 2012.
- [19] DONG Jide. Research and application of task-driven proactive knowledge service technology [D]. Wuhan: Huazhong University of Science and Technology, 2016.
- [20] XIE Yanyan, SUN Jilin. Knowledge service system based on data mining technology: taking GOpubMed in the life sciences field as an example [J]. Library Journal, 2010, 29(5): 59-64.
- [21] WIRTZ B W, KURTZ O T. Local e-government and user satisfaction with city portals: the citizens' service preference perspective [J]. International review on public & nonprofit marketing, 2016, 13(3): 265-287.
- [22] SØRUM H, ANDERSEN K N, CLEMMENSEN T. Website quality in government: exploring the webmaster's perception and explanation of website quality [J]. Transforming government: people process & policy, 2013, 7(3): 322-341.
- [23] WOODS P, SANDHU K, ALOMARI M. Predictors for e-government adoption in Jordan [J]. Information technology & people, 2012, 25(2): 207-234.
- [24] U.S. Government Portal [EB/OL]. [2018-05-11]. <https://www.usa.gov>.
- [25] UK Government Website [EB/OL]. [2018-05-11]. <https://www.gov.uk>.
- [26] Canadian Federal Government Website [EB/OL]. [2018-05-11]. <https://www.canada.ca/en.html>.
- [27] Shenzhen Government Online [EB/OL]. [2018-05-13]. <http://www.sz.gov.cn/cn>.
- [28] WANG Pei, SUN Jianwen. Progress and implications of foreign government website construction and information service standardization [J]. Library Science Research, 2015(22): 45-59.

- [29] YE Xin, DONG Lu'an, SONG Yu. Research on the construction and service strategy of "Internet + government services" cloud platform based on big data and knowledge [J]. Journal of Intelligence, 2018, 37(2): 154-160, 153.
- [30] HU Haibo, GAO Peng. E-government knowledge service model and system model based on knowledge fusion [J]. Information Engineering, 2018, 4(1): 31-41.
- [31] MAO Jingyong. Research on e-government information service based on user experience [D]. Wuhan: Central China Normal University, 2013.
- [32] WU Gexin, ZHAI Shanshan, CHENG Xiufeng. Research on e-government knowledge service based on user interest clustering [J]. Information Science, 2013, 31(3): 121-126.
- [33] SUN Dan. Research on personalized knowledge service based on user information behavior [D]. Wuhan: Central China Normal University, 2012.
- [34] XU Chenchen. Research on e-government knowledge service based on portal websites [D]. Wuhan: Central China Normal University, 2011.
- [35] YE Fei. Research on e-government portal knowledge management based on topic maps [D]. Wuhan: Central China Normal University, 2011.
- [36] LIANG Menghua. Research on e-government knowledge collaborative service in innovative countries [J]. Information Theory and Practice, 2009, 32(2): 14-16, 26.
- [37] LIU Qiaoling. Research on e-government knowledge service based on knowledge grid [J]. Journal of Intelligence, 2007(12): 54-56.
- [38] LIU Xiwen, WU Ming, ZHANG Dongrong, et al. Exploration and practice of knowledge services by literature and information institutions of Chinese Academy of Sciences institutes [J]. Library and Information Service, 2012, 56(5): 5-9, 38.
- [39] XIAO Yinan. Review of service encounter research [J]. Journal of Jishou University (Social Sciences Edition), 2017, 38(S1): 50-54.
- [40] ZHOU Meijing. Research on the relationship between service encounter, consumption emotion, and tourist satisfaction [D]. Changsha: Hunan Normal University, 2015.

Author Contributions

Song Xueyan: Determined the research topic, proposed the research framework, and revised the paper.

Guan Dandan: Wrote the paper and conducted data analysis and processing.

Zhang Xiangqing: Collected paper materials and processed data.

Yang Jiaxuan: Collected, analyzed, and processed data.

Wang Mengyuan: Collected, analyzed, and processed data.

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

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