Research Article

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Awareness and readability of privacy policy documents in mobile loan applications among undergraduate students in Nigeria

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ARTICLE INFO	ABSTRACT
	The study investigated the awareness and readability of privacy policy documents on mobile loan applications among undergraduate students at Kogi State University, Anyigba, Kogi State, Nigeria. Two research objectives specifically guided the conduct of the study. The study adopted a descriptive design approach (survey) and the questionnaire as its primary instrument for data collection. The population comprised 33,700 students of Kogi State University. Given the large population, Krejcie and Morgan were used to purposively select 379 undergraduate students who have smartphones across eight faculties. The study's findings demonstrate adequate knowledge and sensitization on the part of undergraduates to privacy policy documents on mobile loan applications. It was discovered that students of tertiary institutions were aware of the availability of privacy policy documents on mobile loan applications because of their level of social and technological intelligence. Despite students' level of awareness of privacy policy documents on mobile loan applications, there is, however, a poor level of readability of privacy policy documents. The study concludes that following the known and unknown consequences, students have failed to carefully read the entire privacy policy documents in a mobile loan application. The study, among others, recommends that commercial banks and other financial institutions should educate the students more adequately on the eventual risks and consequences of not reading privacy policy documents on mobile loan applications, and mobile loan application developers should concisely mention the privacy policies and put security measures in place to protect user's data.

Keywords: readability, mobile loan application, privacy policy documents |

INTRODUCTION

The widespread adoption of mobile loan applications has empowered individuals to effortlessly manage their finances, save time, and conduct money transactions anytime and anywhere with just a tap, eliminating the need for formal bank accounts. The surge in mobile technology in Nigeria has led to the proliferation of numerous money lending applications. The activation process is straightforward, involving the use of an authentication code and a four-digit PIN for registration, enabling users to send money, make purchases, pay bills, access loans, and withdraw cash (Wanjiru et al., 2020). The ease of access to mobile applications has attracted a large consumer base. Also, most applications mandate submission of national identity cards, secure banking details, and social media accounts, making them accessible to university students who have reached minimum age of 18 years.

Derguech et al. (2018) emphasize that policies should articulate information practices of a domain in a "clear and prominent" manner, posted in a singular location on a website, and accessible through an icon or hyperlink. In simpler terms, policies need to be easily accessible and comprehensible to the general public using website or online service. But, as stated by Bakker et al. (2015), even when consumers have access to policy documents, they often struggle to grasp their content. According to Waldman (2017), using readability metrics for evaluating educational materials is recommended to assist teachers, curriculum committees, and librarians in determining grade-level appropriateness. These metrics can significantly impact the selection of library books, the design of instructional materials, and the choice of suitable reading texts. Applying readability metrics to policy documents,

including terms and conditions, can help policymakers assess the text's suitability for the intended audience. Understanding the educational level of the target audience can play a crucial role in determining the policy language's grade level.

Various operating systems, including Android, iOS, LINUX, Microsoft, UNIX, and others, serve as intermediaries between users and computer hardware, utilizing a diverse range of applications to manage the machine (Gyasi & Bangmarigu, 2019). Each of these software programs has its own advantages and drawbacks that can either expedite issue resolution or potentially impede the computer system's performance. Recognizing the potential impacts on the efficiency of the computer system, software programmers, developers, and manufacturers have incorporated terms of use agreements. Consequently, terms of use can be defined as an agreement or consensus established before users engage with a particular product. They also function as a disclaimer on the manufacturer's part in the event of a product malfunction. Therefore, terms of use serve as a mode of communication between software creators and prospective software users, covering various terms and conditions associated with the software's usage. Service conditions should arguably be straightforward and comprehensible to consumers, enabling them to decide whether they are willing to comply with the terms. This study aimed to investigate the awareness and readability of the policy document for mobile loan applications among undergraduate students at Kogi State University, Anyigba, Kogi State, Nigeria.

Problem Statement

The use of mobile loan apps comes with inherent risks. These apps may be susceptible to technological glitches that disrupt service availability, a variability that significantly differs among apps. Moreover, only a small fraction of publicly available apps undergo rigorous testing (Robillard et al., 2019). Many applications offer tools and services that lack an evidence-based foundation and may provide inaccurate information, posing potential harm to users (Scheufele & Krause, 2019). Robillard et al. (2019) underscored that such apps might discourage users from seeking expert assistance, as they may believe that simply clicking the accept button suffices. Using these applications often involves entering sensitive information, including the user's name, contact details, and data about their personal, financial, and private information. This poses a significant risk to user privacy if the shared data is leaked or compromised (Jones & Moffitt, 2016). Dehling et al. (2015) found that the majority (96.0%) of 18,000 mobile applications on the Apple and Android App stores were associated with potential security and privacy issues.

Users of mobile loan apps often express concerns about the privacy of the personal information they provide to these applications. According to Olmstead and Atkinson (2015), 60.0% of individuals who download apps decide against installing them if they require excessive personal information, and 43.0% uninstall apps after installation for the same reason. Zhou et al. (2019) reported that participants identified privacy issues as a crucial factor in the development of mobile applications and a significant deterrent for some individuals considering the use of such apps. However, Sotiloye and Bodunde's (2018) research found that most students focus on reading for exams and rarely engage with materials outside of their academic curriculum. Despite the growing popularity of mobile loan apps, there is a lack of empirical research on privacy concerns in the context of apps targeting financial information. Fowler et al. (2020) conducted a similar study in the United States on a menstrual tracker, while Derguech et al. (2018) and Robillard et al. (2019) conducted similar research in Canada on mental health apps and in Ireland on online services, respectively. In light of this gap, this study sought to investigate the awareness and readability of privacy policy documents in mobile loan applications among undergraduate students at Kogi State University, Anyigba, Kogi State, Nigeria.

Objectives of the Study

1. To determine awareness of privacy policy documents in mobile loan applications among undergraduate students.
2. To determine level of readability of privacy policy documents in mobile loan applications among undergraduate students.

LITERATURE REVIEW

The assessment of text difficulty has played a crucial role in communication and education throughout human history, as individuals have conveyed, shared, and studied ideas through written language. Consequently, literature must be crafted with readability in consideration. The ease with which a reader can comprehend a written text is defined as readability (Auwal et al., 2020). In the era of the world wide web and social networking sites (SNSs), evaluating the readability of brief messages extends beyond traditional mediums like text messages, instruction manuals, or movie subtitles. It now encompasses social networking platforms that impose character limits on user-generated content. This constraint on characters has not only led to shorter and quicker conversations but has also intensified readability challenges, as users incorporate more abbreviations, acronyms, and hashtags to meet the character limit requirement (Gyasi & Bangmarigu, 2019).

In contemporary times, SNSs have attracted a vast number of users as primary platforms for meeting their information, educational, and entertainment needs. The allure intensifies due to the interactive nature of these sites, allowing users to both consume and produce information. Perrin (2015) estimates that the average person spends 37 minutes per day on social media, and 46.0% of online users turn to social media when making purchasing decisions. This suggests that businesses should leverage social media for expansion, supported by research indicating that nine out of 10 small and medium-sized enterprises use social media for growth. Social media engagement remains robust, with approximately 70.0% of Facebook users logging in daily, and 45.0% logging in multiple times a day. Instagram sees 49.0% of its users accessing it daily, with 32.0% accessing it multiple times each day (Perrin, 2015). As use of social media continues to rise, it becomes essential for academics to explore if readability of text on the platforms might pose a barrier to efficient information exchange for both consumers and producers. As a

result, this study investigates readability of such content, with a particular emphasis on bridging academic insights.

Temnikova et al. (2015) conducted a study on the readability of crisis communication content on Twitter. The authors analyzed tweets from governments, non-government organizations, and mainstream media in seven English-speaking countries, covering disasters from 2012 and 2013. Through the CrowdFlower experiment, they found that tweets written in a combination of languages, those with numerous acronyms or referencing the user, and those with excessive hashtags were difficult to read. To enhance Twitter readability, the authors suggested using moderate sentence length, basic phrases, and placing hashtags after tweets. The study's strengths include its focus on readability in crisis communication on Twitter, using a mixed-method approach that involved content analysis and a crowd-sourcing experiment. The results highlighted the impact of hashtags, acronyms, and multilingual tweets on readability, providing valuable insights. Participants' feedback from the experiment supported the conclusion that the selected tweets were challenging to read, leading to recommendations such as removing hashtags and initials to improve legibility. However, the scope of the authors' inquiry is constrained as it exclusively examined one SNS, Twitter, and a limited number of English-speaking countries. This limitation could be attributed to the preliminary nature of the authors' exploration into the potential readability challenges in crisis communication on social networking platforms. Subsequent studies may consider examining multiple SNSs, particularly those like Facebook and WhatsApp, which offer a higher character limit than Twitter. Additionally, the authors could have enhanced their analysis by incorporating computational metrics such as the GUI evaluator or age rank algorithm to evaluate their sampled tweets and derive readability scores instead of relying solely on content analysis.

Davenport and DeLine (2014) conducted a study on the readability of tweets and their geographic correlations with education. They collected 49 million tweets from Twitter, selecting 17.4 million written in English for analysis. Using the Flesch reading ease algorithm, they created a corpus of tweets and found that tweets exhibit lower readability compared to other short communication formats like SMS or chat. This linguistic distinction holds even with the inclusion of hashtags in tweets. The study also revealed that the presence of hashtags in the reading ease calculation increased the overall difficulty of reading tweets, aligning with the findings of Temnikova et al. (2015). Additionally, an unexpected association between average readability and college graduation rates was observed within zip code tabulation areas, suggesting differences in language or content in these locations.

Meiselwitz's (2013) paper entitled, "Readability assessment of rules and procedures of social networking sites," evaluates the readability of SNS policies and procedures. The study focuses on the challenges users face in comprehending these policies due to factors such as length, file type, and location on the site. Meiselwitz (2013) notes that users tend to find these policies difficult to read, leading them to skim through or focus on specific sections, disregarding the rest. The research also highlights the resistance users exhibit towards changes in policies, especially alterations to default settings, as these changes are not readily accessible through the user interface. This analysis is valuable as it explores an aspect of the readability of microblogging services prevalent across various social media sites. Given interconnectedness of users and site creators through rules and procedures, ensuring accessibility and readability of these policies is crucial for effective communication. Notably, the study's inclusivity, encompassing 24 SNSs, distinguishes it from readings focusing on a single site.

While existing studies have explored the readability of text on social networking platforms, particularly focusing on Twitter, there is still a noticeable gap in the literature regarding a comprehensive examination of readability challenges. These reviewed studies primarily concentrate on Twitter, and to some extent, other platforms like Facebook and Instagram. However, there is limited exploration into the readability dynamics on mobile banking applications.

THEORETICAL FRAMEWORK

The study employed technology acceptance model (TAM) to elucidate individuals' acceptance of information systems (**Figure 1**). TAM posits that the acceptance of technology is forecasted by users' behavioral intention, influenced by their
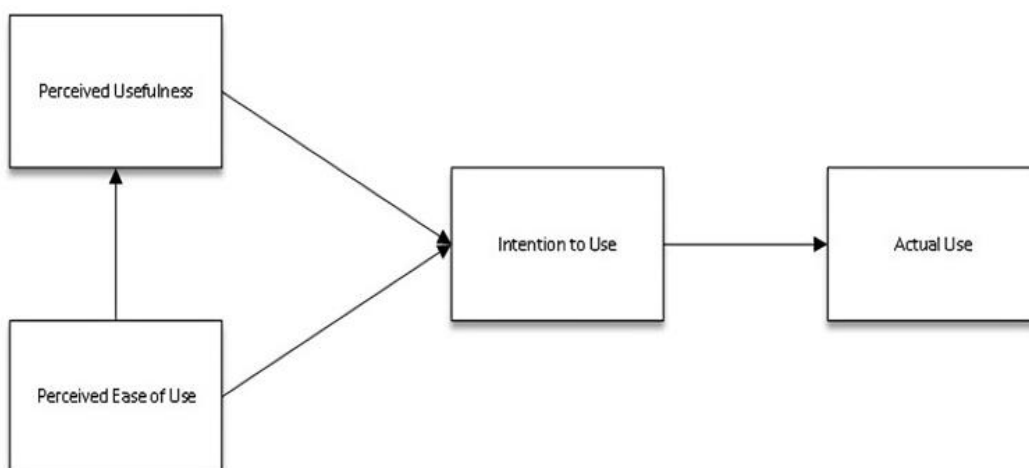

Figure 1. Technology acceptance model (Adapted from Davis, 1989)

perceptions of the technology's usefulness in task performance and the perceived ease of its use.

As outlined by Davis (1989), TAM serves as a theoretical framework illustrating how individuals assimilate new technologies. People engage with technology based on their behavioral intentions, which hinge on two key factors: perceived ease of use (PEOU) and perceived usefulness (PU).

PU in the context of technology refers to the extent to which one believes that using a specific technology enhances their work output. On the other hand, PEOU reflects the degree to which an individual perceives that using a particular technology requires minimal effort. Both PU and PEOU play a crucial role in shaping an individual's decision to adopt innovation (Araújo & Casais, 2020). Additionally, PEOU can impact PU, as the easier a technology is to use, the more beneficial it may appear under equal circumstances. While TAM acknowledges external factors such as social influence in shaping attitudes, individuals may exhibit a predisposition to use technology, with perceptions potentially influenced by factors like age or gender. Innovation has not only transformed human behaviors but also influenced their responses.

In the realm of mobile loan applications, the focus shifts to the simplicity and immediate feedback these apps offer. In contrast to traditional banking, mobile loan apps streamline the loan process, providing quick loans with minimal formalities, ultimately saving time. Aligning with the principles of PEOU and PU, these mobile lending services are accessible anytime and from anywhere with a simple click.

METHODOLOGY

This study employed a descriptive approach through a survey method, utilizing a questionnaire to collect primary data. Structured questionnaires were distributed to respondents, with the formulation of constructs drawing from previous research for content validity assurance. The target audience comprised 33,700 students from Kogi State University, and a representative sample was selected from each faculty, totaling 379 undergraduate students with smartphones across eight faculties: agriculture, arts and humanities, education, management, social sciences, natural sciences, law, and college of health science. For administration of questionnaires, Google Form was used.

The choice of mobile loan apps as the focal point was based on their widespread usability and accessibility among students. Original data were gathered, and a pilot study involving 30 undergraduates from Ahmadu Bello University, Zaria, Kaduna State, Nigeria was conducted to ascertain the instrument's reliability. Using Cronbach's alpha, an overall index value of 0.79 was obtained, indicating the questionnaire's reliability. Descriptive statistical tools were employed to address the research questions.

RESULTS & DISCUSSION

A total of 379 questionnaires were administered and only 365 (96.3%) were retrieved valid, using a Google-designed form that provides analytics. In so doing, the findings of the study were answered/discussed based on the research objectives.

Awareness of Privacy Policy Documents in Mobile Loan Applications Among Undergraduate Students

The findings revealed that 324 (88.8%) were aware of the existence of mobile loan applications. Regarding their knowledge of the privacy policy documents on mobile loan applications, 82.0% of the respondents confirmed that they are aware that privacy policy documents are being provided in their mobile loan applications. It was found in the study that, the majority of respondents (76.0%) got their awareness of the availability of privacy policy documents on mobile loan applications through friends and peers, others (24.0%) sourced their information about the privacy policy documents being available on mobile loan application through bank officials, social media publicity and television. This study's implication is that the knowledgeability of students to the privacy policy documents on mobile loan apps is based on their level of social and technological intelligence. This study contradicts the findings of Robillard et al. (2019), who found that medical students are not aware of privacy policy documents in health mobile applications. In a similar direction, Derguech et al.'s (2018) findings disagreed with this present study.

Level of Readability of Privacy Policy Documents in Mobile Loan Applications Among Undergraduate Students

The research discovered that a significant majority, 73.0% of respondents, seldom read the entire privacy policy document on mobile loan applications. Within this group, 68.0% attributed their non-engagement with the full-text documents to their perceived length, while 32.0% mentioned the incomprehensible nature of the text as a deterrent. Additionally, a substantial 85.0% of respondents reported that they had not faced any adverse consequences for neglecting to read the full-text policy documents on mobile loan apps. This aligns with the findings of Sotiloye and Bodunde (2018), highlighting the tendency of most students to read primarily for exam purposes and seldom engage with materials beyond the academic curriculum. These results also corroborate the findings of other studies by Fowler et al. (2020), Temnikova et al. (2015), and Wanjiru et al. (2020).

CONCLUSIONS & RECOMMENDATIONS

The study reveals that undergraduates exhibit sufficient awareness and sensitivity towards privacy policy documents on mobile loan applications. It suggests that students in tertiary institutions are cognizant of the existence of these documents, attributed to their high social and technological intelligence. However, despite this awareness, the study highlights a notable deficiency in the readability of privacy policy documents. Consequently, due to both known and unknown consequences, students tend to neglect thorough reading of the entire privacy policy documents within mobile loan applications. Based on the findings of this study, the following recommendations were derived:

1. Awareness should also be raised among end-users of the privacy issues surrounding mobile loan apps. Student-users should be encouraged to understand the privacy issues regarding mobile loan applications.

2. Commercial banks and other financial institutions should educate the students more adequately on the eventual risks and consequences of not reading privacy policy documents on mobile loan applications.

3. Mobile loan application developers must clearly communicate privacy policies and implement robust security measures to safeguard users' data. In cases, where they cannot ensure the privacy's safety, the app's privacy policy should explicitly convey this limitation. Additionally, the privacy policy document for mobile loan applications should explicitly mention users' right to have their information deleted from the database if they choose to no longer be part of the application.

The limitations of the study lie on the fact that, it focused on only students at a state university, thereby leaving aside other students of private and federal universities. However, the submissions expressed in this survey generalized, therefore, the findings of this study can be replicated in other larger samples ranging from colleges, polytechnics and other universities. This study contributes to knowledge in terms of literature, theory and policy regarding awareness and readability of mobile loan applications privacy policy documents among Nigerian university students.

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