

APPLICATION OF GOOGLE PLAYSTORE FOR DIGITALIZATION OF UNIVERSITAS TERBUKA SERVICE IN SMARTPHONE TO MANAGERIAL ACCOUNTABILITY OF UNIVERSITAS TERBUKA STUDENTS

Yushita Marini¹, Fajar Saigun Wibowo², Okky Agastya³

^{1, 2, 3}Universitas Terbuka (INDONESIA)

Abstract

Universitas Terbuka (UT) is a university that implements the optimization of digitalization transformation in meeting the information needs of students and the public as a form of service managerial accountability, one of which is by utilizing the Google Play digital application on smartphones. This study aims to provide information about universities in an accountable manner through the digital google play application "Layanan UT Medan" on smartphones, to manage the information needs of Universitas Terbuka students as the main users of public services, as well as to improve managerial accountability of information for users of the Google Play application "Layanan UT Medan" especially for Universitas Terbuka students. The research population is student respondents who are registered at Universitas Terbuka Medan, research samples are users of the Layanan UT Medan google play application who are also students registered at Universitas Terbuka Medan. The results showed that the Google PlayStore application "Layanan UT Medan" was created to provide UT information in an accountable manner, able to help manage the information needs of the students, and to increase managerial accountability of Universitas Terbuka public services.

Keywords : Managerial Accountability, Public Service, Google PlayStore, Layanan UT Medan, Universitas Terbuka

1 INTRODUCTION

1.1 Background

Currently, the digital era has become a reality for all the needs of the world. The digital revolution technology that continues to increase rapidly from year to year is made to facilitate human needs so that every activity becomes more efficient. The peak of the need for digital use occurred during the Covid-19 pandemic, during which time there was limited space for each activity. This makes one of the main factors in the shift of offline activities to online, where people are suddenly "forced" to adapt to using digital itself for various fields, be it the economy, health, education and others.

One of the most beneficial digital revolutions is in the field of education, where previously the majority of education activities were carried out offline, since the pandemic, the needs in the field of education can only be met through digitalization of e-learning. This continues after the pandemic subsided in 2022, educational activities still utilize digital technology because they have felt the ease of fulfilling the increase in educational activities themselves, both for educators and students.

In Indonesia, the policy of using digital technology during the pandemic, especially in the world of sustainable education, is still used by various educational institutions as the main support for the smooth running of educational activities. Even The Ministry of Education, Culture, Research

and Technology (Kemendikbudristek) issued regulation number 13 of 2022 concerning Amendments to Regulation of The Minister of Education and Culture Number 22 of 2020 concerning the Strategic Plan of the Ministry of Education and Culture for 2020-2024 said that strengthening the digitalization of education as one of the strategies Kemendikbudristek in accelerating the realization of the vision of Indonesian education. One of them is through the School Digitization program in order to face the era of the industrial revolution 4.0 which encourages the provision of fast, automatic and open services in improving educational services that are in line with today's developments in technology and information.

At the university level, various uses of digital technology to improve education services continue to be developed in various digital platforms to reduce complexity, increase inspiration, increase efficiency and provide a customized approach. Therefore, Universitas Terbuka as one of the institutions that has a mission to increase equitable access to world-quality higher education continues to optimize the digitization of transformation in meeting the information needs of students and the public as a form of managerial accountability for education services, one of which is by utilizing the Google PlayStore application on smartphones. Universitas Terbuka which has 39 service offices of Unit Program Belajar Jarak Jauh Universitas Terbuka (UPBJJ-UT) spread throughout Indonesia and other countries continues to strive to provide service innovations by utilizing various digital platforms as a form of optimizing the digital transformation of education services.

In order to maximize the use of digital technology in educational services, researchers implemented the Google PlayStore for Digitizing Open University Services in Smartphones for Managerial Accountability of Open University Students.

1.2 Problems

The use of digital technology in increasing productivity in the field of service is important in creating effective and efficient services in order to realize the mission of an institution or an educational organization today. Universitas Terbuka itself provides a variety of educational services to meet the academic and administrative needs of students ranging from the registration system for prospective new students, student academic information systems, links to university information profiles to links to implementation and evaluation of learning at the Universitas Terbuka which students need to plan, develop competence and managerial learning to achieve student educational goals.

The number of link addresses from applications introduced by Universitas Terbuka in each sub-activity can make students wrong in entering and looking for data that should be needed. For this

reason, the Universitas Terbuka employees who work at UPBJJ-UT Medan conduct research to create and design applications that are easy to use anywhere in order to get services and academic and administrative educational information needed more effectively and efficiently.

1.3 Purpose

The purpose of this study is to apply the use of Google PlayStore in digitizing the Universitas Terbuka services in Smartphones through the creation of android applications, analyze factors that support educational services and determine the information needs of student education as the development of design data on the application, how to implement and account for the use of applications that will be used. made in the managerial process of information needs of Universitas Terbuka students.

2 METHODOLOGY

The author uses qualitative research with the aim of processing and describing in more depth and detail the application of Google PlayStore for digitizing Universitas Terbuka services in Smartphones towards managerial accountability of Universitas Terbuka students. The research was conducted at the UPBJJ-UT Medan Office, conducted in 2022. The first step of the research was to observe the needs of consumers, in this case students, for the educational information needed. Researchers use Google PlayStore in making android applications because the majority of UT students have used Android smartphones as a means of daily communication. Data collection techniques from this study used observation, documentation, questionnaires and interviews with android application users designed by the IT team who are also members of this study.

The passive participation observation technique was carried out to determine the general information needs (service menus) needed to improve educational services (academic and administrative services at the Universitas Terbuka) in making educational service android applications. The Documentation Method is carried out to obtain information related to the need for educational services and matters relating to the application of digitizing services through the Google PlayStore for smartphones. Interview techniques and filling out questionnaires through Google Forms were carried out to students as research sources who were users of android applications to find managerial accountability achievements in the education of Universitas Terbuka students.

3 FINDINGS AND DISCUSSION

3.1 Quality of Universitas Terbuka Student Education Services

Universitas Terbuka (UT) which is a State University that implements an open and distance learning system, has evolved from time to time as an education provider whose academic processes and services continue to metamorphose into sophistication to meet the needs of the community. In 2018 UT has been confirmed as a Cyber University because it is a university that intensively and expansively uses technology in terms of learning and student academic services. In the journey, UT has challenges in realizing this digital transformation, including the high heterogeneity of students, both in terms of age, origin and socio-economic background of students in terms of digital readiness. Until now, the 4G & 5G internet provider network has not been spread evenly and reliably throughout Indonesia (Suciati, 2020). Maximizing the use of technology in improving the quality of educational services at the Open University is still being carried out by developing new service applications or upgrading applications that have been created.

Service quality can be interpreted as an effort to fulfill the needs and desires of consumers and the accuracy of delivery in balancing consumer expectations. The quality of education services is part of the quality of services that can be measured using 5 (five) dimensions (Tjiptono, 2014), namely: Tangibles, including physical facilities, equipment, employees and means of communication.

- 1) Reliability, the ability to provide the promised service immediately, accurately and satisfactorily.
- 2) Responsiveness, namely the desire to help consumers and provide the best possible service.
- 3) Assurance, namely the knowledge and courtesy of company employees and the ability to foster consumer confidence in the company.
- 4) Empathy, which includes the ease of doing relationships, good communication, personal attention and understanding the needs of customers.

Service quality can be realized through fulfilling customer needs and desires as well as the accuracy of its delivery in balancing or exceeding customer expectations, in this case UT students. Service quality reflects the comparison between the level of service delivered by the institution compared to the expectations of students as customers of UT's institutional services.

Universitas Terbuka itself has developed several educational services in various aspects to provide services to customers in this case students, ranging from a website application system for registration of new student registrations, assistance services and learning processes, administrative and academic information systems for students, links to university information profiles, to the link

to the implementation and evaluation of learning at UT. The many types of services and application addresses issued by UT to meet the information needed by students on the one hand make it easier for students in the learning process, but on the other hand the public or students who have just joined UT can be wrong in entering and searching for data that should be used . Therefore, researchers develop simple service applications that can be used on each student's device.

3.2 Implementation of the Development of Digitizing Education Services on Smartphones through the creation of applications through Google PlayStore

When discussing digital technology, we will come across some terms Digitation, Digital Technology, Digitization and Digital Transformation. Prof. Dr. Suciati, M.Sc. (2020) in his book *Digital Transformation as a Breakthrough in Educational Technology* said that the term "Digitation" refers to converting (encoding) analog information into digits 1 and 0, so that it can be stored, processed by a computer, then distributed using the internet or as files that are easily transferred as digital content. "Digital Technology" includes various forms, such as various mobile devices, social media platforms, analytics, and embedded content. "Digitalization" is a phenomenon of restructuring the domain of social life in relation to digital communication and media infrastructure (which contains digital content). Then "Digital Transformation" is explained as the interaction of digital technology into various lives, which is fundamentally a redesign of business models, ways of working and organizational structures (Demirkan, et al; 2016).

There are 4 (four) dimensions of the Digital Transformation framework which include the Use of Technology, Changes in Value Creation, Structural Changes and Financial Aspects (Hess, et al; 2015). Digital transformation requires changes in all related units, in the use of digital technology to achieve institutional goals. Digital technology includes big concepts such as seamless resources, seamless access to information in various forms and using a variety of devices, as well as fast personalization. According to the McKinsey Global Institute (2018), it is estimated that there will be a shift in workforce skills by 2030, where the proportion of physical and manual skills in basic cognitive abilities will decrease, while the share of technological, social and economic skills will increase. So that the need for digital transformation, including the digitization of educational information services, must continue to be adapted to the needs of today's developments.

Based on the development of digitization, researchers develop educational services by utilizing Google PlayStore to create applications that are easily accessible to students through devices, especially Android smartphones. The Android application "Layanan UT Medan" is an application

created with the aim of making it easier for students to access educational information anywhere and anytime through applications available on android smartphones which are mostly used by students. Through this application, students are expected to be able to make it easier for students to manage the information needed for educational services more accountable.

Before the application "Layanan UT Medan" was created, researchers made observations to identify the main educational information needs needed by students and the general public in the learning process and evaluation to the supporting information that students need. From the results of observations, identified information needs needed include:

- a. Information on the New Student Registration Guide and the registration link address at www.admisi-sia.ut.ac.id.
- b. Course Registration Information that students can access at the website link www.sia.ut.ac.id.
- c. Information on Digital Teaching Materials that can be accessed via Android.
- d. Information on learning links at UT, such as Online Tutorials (Tuton) for students taking Fully Online classes accessed at www.elearning.ut.ac.id, Webinar Tutorials for students taking Face-to-face Tutorials (TTM) which are accessed at www.lms.ut.ac.id and for students who do not take Tuton or TTM classes, they are directed to work on course assignments which are accessed at www.tmk.ut.ac.id.
- e. General university information such as academic calendar, UT catalog, UT accreditation, Digital Library, Tracking delivery of textbooks Buku Materi Pokok (BMP), and others.
- f. Information on codes, abbreviations and terms used at UT in providing information to students.
- g. Information about several service contacts such as One Stop Service, Halo UT and several social media that can help provide information directly.
- h. Latest important announcements related to the latest academic activities, policies and regulations of the Universitas Terbuka.

From the identification of information needs above, the researcher then carried out the application development process, namely: Design process for the right Layout, Button, Background and Logo that will be displayed on the application. The design selection is adjusted to the characteristics and colors of UT.

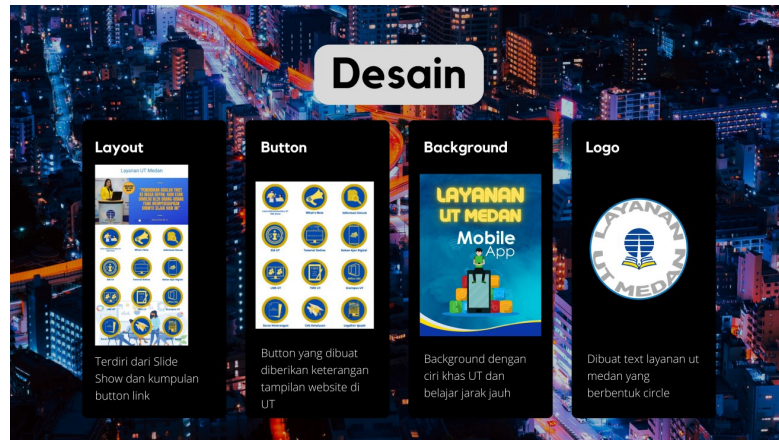


Figure 1. Display Design displayed on the application "Layanan UT Medan"

- 1) Determine the menus that have been adapted to the identification of information needs for Education Services needed. Various application link addresses that have been published by UT are collected and grouped with a simpler view.
- 2) Coding process that uses the android version that will be used on the smartphone. The main application used in the coding development process combines menu design with coding using Android Studio, then supporting applications to design layouts, buttons, landing pages and notifications using Canva.

The superior features of the "Layanan UT Medan" application are made to maximize the accountability of educational information by managing services as follows:

- 1) All links to information on academic services and education administration that have been developed by UT have been incorporated into one application.
- 2) Users can open the application with a browser that has been simplified with the appearance of an android smartphone directly integrated with the application.
- 3) The application is more responsive, with sharper visual effects, but is displayed in a simple way to make it easier to understand its use.
- 4) Application users will receive updated information notifications directly through each user's smartphone.

After the "Layanan UT Medan" application was made, this application was then socialized to consumers of educational services, both to students and the public through social media or directly on the UPBJJ-UT Medan campus.

3.3 Utilization of the “Layanan UT Medan” Application for Managerial Accountability of Universitas Terbuka Students

Accountability is control over public organizations at the organizational level as a basis for providing explanations to parties who have an interest in evaluating and evaluating actions taken by public organizations. Accountability has five dimensions: transparency, accountability, control, responsibility, and responsiveness (Wicaksono, 2015). While The Managerial dimension is an effective managerial activity process, starting from the planning, implementation, administration, reporting, coaching and monitoring processes (Yudhanti, 2018).

Managerial Accountability in this study is a simple correlation between each indicator of accountability and managerial processes, between the use of the "Layanan UT Medan" application and UT Student Managerial Accountability in the learning process. Indicators of interviews and questionnaires addressed to students who use the "Layanan UT Medan" application as research sources use accountability and managerial dimensions. The following is a table of key questions for interviews and research questionnaires:

Table 1: Key Questions for Accountability and Managerial Dimension Indicators

No	Accountability Dimension	Key Question
1	Transparency	Is the application “Layanan UT Medan” able to present and disclose the information that students need in detail (transparent)?
2	Accountability	Is the information content in the “Layanan UT Medan” application able to convey information correctly?
3	Control	Is the application “Layanan UT Medan” able to provide information as needed?
4	Responsibility	Is the information in the “Layanan UT Medan” application able to follow the rules or service provisions that apply to public services?
5	Responsiveness	Is the application “Layanan UT Medan” able to respond to requests for information quickly & as expected?
	Managerial Dimension	
6	Planning	Is the application “Layanan UT Medan” able to help students in preparing lesson plans at UT?
7	Implementation	Is the application “Layanan UT Medan” able to help students in carrying out learning?
8	Administration	Is the application “Layanan UT Medan” able to help students in organizing learning activities?
9	Reporting	Is the application “Layanan UT Medan” able to present the results of student learning evaluations?
10	Coaching	Is the application “Layanan UT Medan” can help students to understand learning at UT?

11	Monitoring	Is the application “Layanan UT Medan” able to assist students in monitoring the progress of academic results through the application “Layanan UT Medan”?
----	------------	--

The results of the observation of the distribution of questionnaires/questionnaires were carried out through Google Forms and the results of interviews with UT students who used the “Layanan UT Medan” application as many as 38 (thirty-eight) sources, with the results of the respondent's data as follows:

Table 2: Results of Accountability and Managerial Dimension Indicators

No	Accountability Dimension	Results of Respondents
1	Transparency	A total of 33 resource persons answered the application “Layanan UT Medan” able to present and disclose the information needed in detail, 5 respondents answered that they could not. This shows that as much as 86.9% of the transparency of information presented by the “Layanan UT Medan” application is able to provide educational information needed by resource persons.
2	Accountability	A total of 37 resource persons answered the information content in the “Layanan UT Medan” application and were able to convey information correctly, 1 resource person answered that they could not. This shows that 97.37% Accountability of the information content in the application is able to convey information correctly.
3	Control	A total of 34 resource persons answered the application “Layanan UT Medan” able to provide information in accordance with the expectations required, 4 resource persons answered unable. This shows that 89.47% of control over information is able to match the expectations needed by students.
4	Responsibility	A total of 37 resource persons answered the information on the “Layanan UT Medan” application and were able to follow the rules or service provisions that apply to public services, 1 resource person answered that they could not. This shows that 97.37% of the responsibility for the information provided in the “Layanan UT Medan” application is able to follow the applicable rules or service provisions.
5	Responsiveness	A total of 32 resource persons answered the application “Layanan UT Medan” able to respond to requests for information quickly & met expectations, 6 resource persons answered unable. This shows that

		84.21% Responsiveness responds to the response to the delivery of information on the application “Layanan UT Medan” able to quickly & meet expectations.
	Managerial Dimension	
6	Planning	A total of 34 resource persons answered that students were able to use the “Layanan UT Medan” application in preparing lesson plans at UT, 4 resource persons answered that they could not. This shows that 89.47% Planning for the use of the “Layanan UT Medan” application is able to assist students in preparing learning plans at UT.
7	Implementation	A total of 34 resource persons answered that students could carry out learning through the “Layanan UT Medan” application, 4 resource persons answered that they could not. This shows that 89.47% of the implementation of learning can be done through the application “Layanan UT Medan”.
8	Administration	A total of 37 resource persons answered that the “Layanan UT Medan” application was able to assist students in organizing learning activities, 1 resource person answered that they could not. This shows that 97.37% of the administration of student learning activities can be facilitated by the application.
9	Reporting	A total of 36 resource persons answered the application “Layanan UT Medan” able to present the results of the evaluation of student learning, 2 resource persons answered unable. This shows that 94.74% of student learning reports are able to be presented with the “Layanan UT Medan” application.
10	Coaching	A total of 35 resource persons for the “Layanan UT Medan” application were able to assist students in understanding learning at UT, 3 resource persons answered that they could not. This shows that 92.10% of guidance in understanding learning at UT is able to be presented with the “Layanan UT Medan”.
11	Monitoring	A total of 36 resource persons answered that students were able to monitor the progress of academic results through the “Layanan UT Medan” application, 2 resource persons answered that they could not. This shows that 94.74% Supervision of academic progress can be done through the “Layanan UT Medan”.

From the data above shows that an average of 92.02% of the indicators of the Accountability Dimension and the Managerial Dimension have been met, it can be concluded that the application

"Services UT Medan" has fulfilled the Managerial Accountability of educational information services at UT well to students.

4 CONCLUSION

Utilization of Google PlayStore in digitizing Open University services through the creation of an android smartphone application "Layanan UT Medan" is carried out to support the improvement of educational services and meet the information needs of students' education, made based on information needs that have been identified to provide convenience for educational information services to students as consumer users. information. The information menus displayed in the application "Layanan UT Medan" are identified from the main information needs for educational service needs at UT. The choice of design, display of menus and the use of coding in the application development process were chosen based on the characteristics and colors of UT, built using Android Studio and Canva applications.

The results of interviews and questionnaires that have been filled out by students who have used the "Layanan UT Medan" application show that in general the application "Layanan UT Medan" has fulfilled Managerial Accountability as much as 92.02% of the fulfillment of educational information services at UT well for students . Improvements to the "Layanan UT Medan" application continue to be carried out to be able to meet the educational information needs of students as a form of implementing customer service through digitalization.

The conclusion needs to be concise and coherent.

ACKNOWLEDGEMENTS

In the preparation of this study, researchers received assistance and support from various parties. Therefore, the researcher would like to thank:

- 1) The Leadersn and The Big Family of the Universitas Terbuka, especially the employees of UPBJJ-UT Medan who have provided support and input on this research, so that the application can be formed and this research can run well.
- 2) Universitas Terbuka students who helped and contributed as resource persons in research.
- 3) Developers of Google PlayStore, Android Studio, Canva and other Microsoft applications that support the formation of the "Layanan UT Medan" application.

REFERENCES

- Aziz, Safrudin (2016) *Manajemen Mutu Perguruan Tinggi-Koreksi dan Implementasi*. Cetakan I. Yogyakarta:Gava Media.
- Demirkan. H., Spohrer, J.C., Welsch, J.J. (2016). *Digital Innovation and Strategic Transformation*. IT Prof. 18 (6). 14-18. <https://doi.org/10.1109/MITP.2016.115>.

- Hess, T., Matt. C., Benlian, A., Wiesboeck, F. (2016). Options for Formulating a Digital Transformation Strategy. *MIS Quarterly Executive*. 15 (2), 123- 139. <https://doi.org/10.7892/BORIS.105447>.
- Kanji, Lusiana. (2018). Pengaruh Akuntabilitas Publik dan Kejelasan Sasaran Anggaran terhadap Kinerja Manajerial SKPD di Kota Makasar. *BJRA (Bongaya Journal for Research in Accounting)*. Vol. 1, No. 1, April. <https://ojs.stiem-bongaya.ac.id/index.php/BJRA>.
- Kementerian Dalam Negeri Republik Indonesia. (2021). *Inovasi Pelayanan Publik, Tata Kelola Pemerintahan, dan Inovasi Bentuk Lainnya Pada Daerah Terinovatif*. <https://binaprajapress.kemendagri.go.id/wp-content/uploads/2022/02/Pelayanan-Publik.pdf>.
- Kementerian Pendidikan, Kebudayaan Riset, dan Teknologi Republik Indonesia. (2022). *Peraturan Menteri Pendidikan, Kebudayaan Riset, dan Teknologi Republik Indonesia Nomor 13 Tahun 2022*. <https://roren.kemdikbud.go.id/wp-content/uploads/2022/05/SALINAN-PERMENDIKBUDRISTEK-NOMOR-13-TAHUN-2022.pdf>.
- Kementerian Komunikasi dan Informatika Republik Indonesia. (2019). *Digitalisasi sekolah Percepat Perluasan Akses Pendidikan Berkualitas di 3T*. https://www.kominfo.go.id/content/detail/22211/digitalisasi-sekolah-percepat-perluasan-akses-pendidikan-berkualitas-di-daerah-3t/0/artikel_gpr#:~:text=Program%20Digitalisasi%20Sekolah%20merupakan%20terobosan,unsur%20pendidikan%20juga%20bisa%20mengaksesnya.
- Majchrzak, A., Markus, M.L., Wareham, J. (2016). Designing for digital transformation: Lessons for Information Systems Research from The Study of ICT and Societal Challenges. *MIS Quarterly*. 40 (2). 267-277. <https://doi.org/10.25300/MISQ%2F2016%2F40%3A2.03>.
- Marthalina. (2018). Analisis Kualitas Pelayanan Akademik dan Kepuasan Mahasiswa di IPDN Kampus Jakarta. *Jurnal MSDM*. Vol. 5, No. 1/Juni 2018: 1-18. IPDN. <https://ejournal-new.ipdn.ac.id/JMSD/issue/view/84>.
- Suciati. (2020). *Transformasi Digital sebagai Trend Teknologi Pendidikan*. Universitas Terbuka. <http://repository.ut.ac.id/8890/1/OR003-20.pdf>
- Susanto, H., (2014) Pengaruh Layanan Akademik Terhadap Kepuasan Mahasiswa Program Pascasarjana Universitas Terbuka Pada Unit Program Belajar Jarak Jauh (UPBJJ) Mataram. *Jurnal Pendidikan Terbuka dan Jarak Jauh*, Vol. 15, No. 2, September. <https://doi.org/10.33830/ptjj.v15i2.592.2014>.
- Tjiptono, Fandy, (2014) *Pemasaran Jasa – Prinsip, Penerapan, dan Penelitian*. Yogyakarta : Andi Offset.
- Wicaksono, K. W. (2015). Akuntabilitas Organisasi Sektor Publik. *JKAP (Jurnal Kebijakan dan Administrasi Publik)*, 19(1), 17-26. <https://doi.org/10.22146/jkap.7523>.

Wijoyo, R.P., Galeria, Beta, et al. (2021). Penerapan Digitalisasi Informasi Kepegawaian “ASN Memayu” pada Aparatur Sipil Negara di Lingkungan Pemerintah Daerah Istimewa Yogyakarta. *Lifelong Education Jurnal*. Vol. 1, No. 1, April. <https://journal.imadiklus.or.id/index.php/lej>.

Yudhanti, A.L. (2018). Penerapan Sistem Transaksi Non Tunai terhadap Akuntabilitas Kinerja Manajerial. *BAJ (Behavioral Accounting Journal)*. Vol. 1, No. 2, <https://doi.org/https://doi.org/10.33005/baj.v1i2.26>.

