



The influence of innovation of braille corner service innovation on service quality and library performance

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Abstract

The objective of this research is to discover the effect of Braille Corner Service (BCS) Innovation on Service Quality and Library Performance at Public Library and Archive Office of Malang City. The background is based on the problem of providing public facilities that are not yet accessible for persons with disabilities. BCS is a pioneer of innovation in order to provide equality for persons with the disabilities to get their rights in the field of literacy and education. The research method is quantitative with explanatory research type. The number of samples used consisted of 33 students and already had a schedule of visits to use the BCS and three librarians who served on the BCS. Data analysis used is descriptive and path analysis. The results indicate that the variables of Service Innovation of Braille Corner Service proved to have a significant effect on Quality of Service and Library Performance.

Keywords: service innovation, braille corner, quality of service, performance, and library

1. Introduction

The survival of an organization depends largely on how responsive the organization is to the challenges (Hallin, 2017, Jelassi, 2017) ^[9, 11]. In the current era of globalization, it cannot be denied to have an impact on the life of the organization that is required for its efficiency and effectiveness. Regarding this concern, utilization of rapid growing IT is indeed required. This is in accordance with the perspective of New Public Service (NPS) proposed by Denhardt & Denhardt (2003) in Suaedi, and Wardiyanto (2010, p.43) ^[18], that a set of idea about the role of public administration in the governance system that place public service, democratic governance, and civic engagement at the center. From this perspective, it can be interpreted that the values of democracy, citizenship, and public interest services are indispensable in the context of public administration. The NPS perspective explains that public service is the main task of the implementation of a democratic state. Law Number 25 the Year 2009 on Public Service defines public services as activities or series of activities in the context of fulfilling the needs of services in accordance with legislation for every citizen and citizen of the goods, services and/or administrative services provided by the public service providers. One form of organization used by the government in carrying out public services is a bureaucratic organization. In the current era of reform, bureaucratic organizations are required to be able to change attitudes and patterns of thought in providing public services so as to accommodate the needs of society optimally. However, in reality, bureaucratic organizations are less able to provide quality public services (Hardiyansyah, 2011; Alornyeku, 2011; Lonescu, Lazaroiu, and Losif, 2012; Aucoin, 2008) ^[10, 2, 12, 3].

This research was conducted at the Public Library and Archive Office of Malang City. The reason to make the place

as an object due to the Public Library and Archive Office of Malang City has successfully implemented the innovation Service Braille Corner to provide equality for the community in obtaining their rights in the field of literacy and education, especially for people with vision impairments. The formulation of the problem in this research is the Application of Braille Corner Service Innovation significantly influences the Quality of Service in Public Library and Archive Office of Malang City? Is the Application of Braille Corner Service Innovation significantly influences the Performance of Library in the Public Library and Archive Office of Malang City? Moreover, Does Service Quality significantly influences the Performance of Library in the Office of Public Library and Regional Archives of Malang?.

The results of the study contribute to filling the gap in the prior studies. Without the redefinition of society as members of the social system will never know the existence of such innovation and they cannot feel the benefits provided by the innovation. The process of innovation diffusion can be known from the innovative nature of Relative Advantage, Compatibility, Complexity, Trialability, and Observability. The results of research conducted at the Office of Integrated Licensing Services of Surakarta City showed that the licensing service innovation undertaken by the agency has been running well, it can be known from all indicators that refers to the five nature of innovation showed results under the perceptions and expectations of service users.

Meanwhile, the results of this study indicate that the variables of Braille Corner Service Innovation Influence significantly influences the Quality of Service. The equation found between this study and the previous research described above is the Innovation Deployment Variable also uses the nature of innovation as an indicator to measure the process of redefining the Braille Service innovation to the community. However,

there is a gap found in this study that not all the properties of these innovations show results in accordance with the expected. The gap can be proved by the results of measurements that have been done and obtained the result that the indicator of compatibility (compatibility) has the lowest mean value of 2.27. This indicates that the compatibility indicator has not been able to contribute to improving the quality of service and has not been able to meet the perception and expectations of users of Service Braille Corner.

The results of this study indicate that the Application of Braille Corner Service Innovation significantly influences the Library Performance. The equation found between this study and previous research that has been described above is in measuring the performance of libraries, the subject used is a special needs readers, namely blind people. However, there is a gap that was found in this research that is previous research using standard IFLA Checklist which is a standard for measuring the performance of special library while this research still uses performance measurement standard in general, namely ISO 11620: 2008.

The results also indicate that the Quality of Service significantly influences the Library Performance. The equation found between this research and previous research that has been described above is the research location used in the Service Braille Corner at the Public Library and Archive Office of Malang City and the research subjects used are blind readers. However, there is a gap found in this study that the quality of service contained in Service Braille Corner is almost in accordance with the expectations of the user. The gap can be proven from the results of measurements that have been done and obtained the result that only the indicator of responsiveness which has the lowest mean value of 2.39.

2. Theoretical review and hypothesis development

Challenges of Innovation and Quality of Public Services

Innovation is one way to reduce problems in the public sector (Daglio, Gerson, and Kitchen, 2015; Bommert, 2010; Suwarno, 2008) ^[5, 4, 20]. Innovation in the public sector is needed to deliver public services that reflect the availability of public choices and create a diversity of service methods. Public service innovation does not have to be anything new, but public service innovation can also be a combination of previous innovations that are useful to improve the quality of innovation of existing public services. According to Noor (2013) ^[13], the keyword of innovation is the change. The change can occur by chance and not systematically, but in order to call the change as an innovation, the change must contain elements of awareness and a strong contemplation (Syfaruddin, 2012; Rugut, 2013) ^[21, 15].

Applying innovations to public sector organizations often still encounter many challenges. The challenge will ultimately inhibit the transformation of brilliant ideas into an innovation that can make a significant contribution in improving the quality of public services (Damanpour, and Schneider, 2009; Walker *et al.*, 2011) ^[6, 23]. Therefore, these challenges should be minimized by building commitment from all stakeholders in order that the implementation of innovation can be successful and in accordance with the objectives and targets to be achieved by the organization. In addition, governments also need to encourage development directed at the provision and

improvement of public facilities to support accessibility for persons with disabilities. This is in line with the research conducted by (Firdaus, and Iswahyudi, 2008) ^[8] which revealed that accessibility is a prerequisite for persons with disabilities to participate in the community and serves to minimize discrimination in the utilization of public facilities. Therefore, the Government and the segments of society should be able to shift their paradigm or perspective against the disabled. In this case, the government should ensure the existence of PwDs through the policies it releases. While from the segment of society itself, can be done by not being apathetic and provide a comfortable social environment so that people with disability do not feel isolated and able to adapt and interact with other society.

Therefore, a hypothesis can be proposed as follows:

H1: The Application of Braille Corner Service Innovation significantly influences Service Quality.

The Innovation of Public Service and Organizational Performance

In the public sector, innovation is needed to correct the emerging problems in an institutional system. This is because, in principle, innovation is an effort by the organization to make improvements in an institutional system to achieve a more perfect level and indirectly will be able to improve organizational performance. In addition, according to Suwarno (2008, p.23) ^[20], there is a reason for the public sector to innovate because of the demands of accountability, transparency and various principles of good governance that lead organizations to perform excellent enough. Libraries that are public sector organizations are supposed to create an innovation in order to improve their performance (Sutarno, 2006) ^[19]. In addition, libraries also need to have appropriate performance measurement standards so that libraries can develop and improve the quality of services provided to blind readers. This is in accordance with research conducted by Wibawanti (2015) ^[24] which states that the assessment of librarian performance is very important to manage the library because it will produce data that can help librarians in making decisions and to improve services. Therefore, if the library does not perform performance measurement then the library never knows the quality of its services so that the library will not try to improve its service even though the library exists also to serve the blind readers.

Based on the outcome of such research and arguments, the following hypothesis is

H2: Application of Braille Corner Service Innovation significantly influences Library Performance.

H3: Service Quality significantly influences Library Performance.

3. Research method

This research uses a quantitative approach with explanatory research type. According to Singarimbun, and Effendi (2006, p.5) ^[17], explanatory research is a study that explains the causal relationship between variables through the submission of a hypothesis. This type of explanatory research is used because it is in accordance with the formulation of the problem and purpose in this study is to determine the effect of

the variable application of Braille Corner Service innovation on service quality and library performance in the Malang Public Library and Regional Library Service.

Sample

This research was conducted at the Public Library and Archive Office of Malang City. The reason is the Department of Public Library and Regional Archives of Malang City has successfully implemented Braille Corner Services innovations to provide equality for the community in obtaining their rights in the field of literacy and education, especially for people with visual impairments. In addition, the Braille Corner Service innovation has been awarded the Top 99 Public Service Innovation 2017 from the Minister of Administrative Reform and Bureaucracy Reform (*Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi*) as it has become the pioneer of innovating public library services for people with disabilities in East Java. The sample of this research consisted of 33 students from *Rehabilitasi Sosial Bina Netra* (RSBN) Malang and three librarians of Braille Corner Service. Sampling technique in this study using Total Sampling is the total of the total population.

Operational definition and variables measurement

There are three variables in this study, namely exogenous variables, namely innovation of Braille Corner Services (X), intervening variables namely Service Quality (Y₁), and endogenous variables namely Library Performance (Y₂). The application of Braille Corner Service Innovation (X) is an innovation that is communicated through computerized technology to members of the social system, especially those with visual impairments so that they can utilize the Malang City library facilities. Referring to Rogers in Suwarno (2008, p.17) [20], indicators on the application of service innovation are relative benefits, suitability, complexity, probabilities, and ease of observation. Innovation must have more advantages and value when compared to previous innovations. Innovation must also be compatible with the problems faced. In innovation, also a complexity must be tolerated and does not become a significant problem. Innovation is only acceptable if it has been tested and proven to have an advantage or more value when compared to the old innovations. An innovation must be observable in terms of how it works and produce something better.

In the variable Quality of Service (Y₁) which defines a quality

service if the service is able to meet the expectations or wishes of service users. Referring Parasuraman, Zeithmal, and Berry in Tjjiptono (2004, p.14) [22] there are five indicators in service quality that are tangible as physical evidence, reliability, responsiveness, assurance/certainty, and empathy/care. Performance Library (Y₂) is a description, success, or failure in the library. Referring to ISO, 1162: 2008, indicators for library performance include library resources, access, and infrastructure, usage, efficiency, and potential and development. Through these indicators can be seen the success of libraries that have certified services.

Data analysis methods

The questionnaire was used in this study to obtain data on the research object. The data obtained are then processed and carried out the research instrument test for validity and reliability testing. Data that is valid and reliable is analyzed using Path Analysis using SPSS for Windows version 22. Variables in this path analysis are divided into two, namely exogenous, which is the cause and endogenous or consequent variable (Sarwono, 2012) [16]. Path analysis is done to find explanations about the patterns of direct and indirect relationships based on theoretical considerations and knowledge of the researchers displayed in the form of images (path diagrams) that serve to help conceptualize complex problems and recognize implications empirical and the theory being tested. The reason for using path analysis in this study is to find out the direct and indirect effects of each variable to be tested.

4. Analyses and the discussion of the results

Data obtained by the number of respondents who were male were more than women, namely 29 people (80.6%) from 36 people. The majority of respondents were 21-30 years old, namely 19 people (52.8%) from 36 people. The majority of respondents in this study were 33 students (91.7%) from 36 people. The last level of education is at the junior high school level, totalling 12 people (33.3%) from 36 people. The majority of users who use Braille Corner Services, which visited five times, showed 23 people (63%) out of 36 people (Table 1). The results showed the influence between variables, namely the Innovation Application Braille Service (X₁), Service Quality (Y₁) and Library Performance (Y₂) variables shown in Tables 2. The results of testing the hypotheses in this study are as follows.

Table 1: Demographic of Respondents (N=36)

Respondent Characteristics	Amount	Percentage (%)	Respondent Characteristics	Amount	Percentage (%)
Gender			Status Profession		
▪ Male	29	80,6	▪ Student	33	91,7
▪ Female	7	19,4	▪ Civil Workers	3	8,3
Level of Education			Age		
▪ Uneducated	5	13,9	▪ <20	5	13,9
▪ Elementary	6	16,7	▪ 21-30	19	52,8
▪ Middle School	12	33,3	▪ 31-40	7	19,4
▪ High School	10	27,8	▪ 41-50	5	13,9
▪ Diploma	1	2,8	▪ >50	0	0
▪ Undergraduate	2	5,6			

Table 2: Direct Effect, Indirect Effect and Total between Variables. (N =36)

Variable Exogenous	Variable Endogenous	Direct Effect	Indirect Effect	Total Effect	p-value	Information
Braille Corner Service Innovation	Service Quality	0,679	0	0,679	0,000	Significant
Braille Corner Service Innovation	Library Performance	0,459	(0,679)*(0,411) = 0,279	0,738	0,003	Significant
Service Quality	Library Performance	0,411	0	0,411	0,007	Significant

Coefficient of Determination (R²) (1) = 46,1%

Coefficient of Determination (R²) (2) = 63,5%

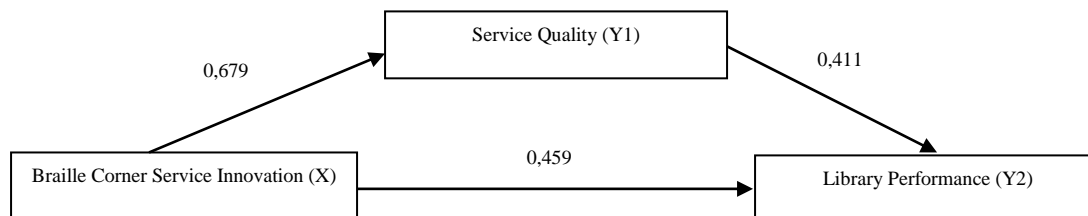


Fig 1: The results of the test between variable

Model accuracy

The accuracy of the hypothetical model of the research data is measured from the relationship of the coefficient of determination (R²) on the two equations. The results of the accuracy of the model are as follows:

$$\begin{aligned}
 \mathbf{R^2 \ model} &= 1-(1- R_1^2) (1- R_2^2) \\
 &= 1-(1-0,461) (1-0,635) \\
 &= 1-0,196 \\
 &= 0,804 \\
 &= 80,4\%
 \end{aligned}$$

Based on the calculation using the formula above, it can be seen that the contribution model to explain the structural relationship between the three variables studied is 80.4%, it shows that the model used in this study is appropriate and able to explain the relationship of each variable used, leaving only 19.6% described by other variables because they are not included in this research model.

a) Braille Corner Service Innovation (X) Application towards Quality of Service (Y₁)

The results showed that the Application of Braille Corner Service Innovation at the Department of Public Library and Regional Archives of Malang City was able to provide satisfaction for service users, namely people with visual impairments. Increasing user satisfaction through the Implementation of Braille Corner Services Innovations will make the Malang Public Library and Archives Service more able to understand the needs of people with visual impairments. The Office of Public Library and Regional Archives of Malang City should understand various kinds of complaints such as accessibility, type of services and collections provided, and the attitude of officers in providing services for the users of services that are devoted to persons with disabilities would be able to feel satisfied with the service. Such understanding needs to be converted into a concern so that PwDs do not feel marginalized in provided public services. This research is in accordance with the opinion of Parasurman, Zeithaml, and Berry in Tjiptono (2004, p.14) [22] mentioned that there are five principal dimensions of Service Quality and one of them is in fact, related to tangible evidence

which stating that owned physical facilities such as infrastructure must be able to increase customer satisfaction with the services provided. In addition to the appearance of the officer must also be neat so that will create a good impression in the eyes of service users. This opinion is in line with the research of Rinawati *et al.* (2017, p.240) [14] which states that the satisfaction of the user is a benchmark of the success of a library in providing services to the user. In addition to the appearance of the officer must also be neat in order to create a good impression in the eyes of service users. This opinion is in line with the research of Rinawati *et al.* (2017, p 240) [14] which states that the satisfaction of the user is a benchmark of the success of a library in providing services to the user.

The application of Braille Corner Services innovation is able to improve the organization's image. The results of the study are in accordance with the opinion of Dhewanto *et al.* (2014, p.106) [7] stating that innovation can be utilized to enhance the company's reputation and image in three main ways. First, the level of efficiency and quality of service. Secondly, the projection of public image will enhance the international attractiveness and attract investors. Third, assess appeals for assessment and/or have an interest in fulfilling the perceived commitment in public opinion. In connection with these opinions, it can be seen that innovation has implications for improving the quality of service organizations both in the public sector and the private sector.

b) Effect of Application of Braille Corner Service Innovation (X) on Library Performance (Y₂)

Based on the result of the determination, to connect between the variable of Innovation of Service Service of Braille Corner with the variable of Performance of Library required variable of Quality of Service that acts as an intervening variable, it can be seen from indirect effect value which shows value equal to 0,279. The value is positive and indicates that the existence of the Service Quality variable plays a role in strengthening the relationship between the variables of the Braille Corner Service Innovation Implementation to the Library Performance variables. It is known that the results of the research show that Application of Braille Corner Service Innovation in the Public Library and Archives Office of

Malang City is able to improve the Library Performance through spending on information in electronic form.

Expenditure on information in the form of electronic collection is needed to continue to maintain the existence of the Public Library and Archive Office of Malang City from the development of technology and information that demands improvement in all areas of the organization's life, especially in providing the needs of the blind readers through the provision of necessary collections and in terms of public service delivery quality. This is in accordance with the opinion of Novantri in Agustin (2017, p.11) ^[1] which states that one of the main elements of the library is the availability of a suitable and adequate collection, in the absence of an excellent collection and adequate, the library will not be able to provide excellent service to the librarians. Application of Braille Corner Service Innovation in the Public Library and Archives Office of Malang City is able to improve Library Performance through library staff assigned to electronic services. In addition, to affect the provision of adequate collections, the development of information technology within the scope of libraries also affect the performance of library staff or librarians. This statement is in line with the research conducted by Wiratningsih (2010, p.9) ^[25] that information technology also makes it easy for information managers/librarians to process, store, and disseminate information it possesses. The library which is a public sector organization is supposed to create an innovation to be able to improve its performance. This is in line with the opinion expressed by Sutarno (2006, p.116) ^[19] which states that the performance of the library is a picture of the success or failure in the implementation of the library. In connection with this opinion, it can be seen that the application of innovation influences library performance.

c) The Impact of service quality (y_1) on library performance (y_2)

The results of the path analysis show that the direct effect of Service Quality has impact on Library Performance 0.411 or 41.1% with significant score 0.007 (<0.05). It has the understanding that Library Performance (Y_2) is influenced by Service Quality (Y_1) by 41.1%, while the remaining 58.9% is influenced by other outside variables. The performance of the Library is based on the concept of public service and the translation of indicators which refers to the service quality theory according to Pasuraman, Zeithaml and Berry in Tjiptono (2004, p.14) ^[22], i.e. tangibles, reliability, responsiveness, and empathy. In public organizations, performance measurement has been done by reviewing the given public services.

5. Conclusions, Implications and Limitations

5.1 Conclusion

Innovation undertaken by the library of Malang City is able to improve the quality of library services, and in accordance with the needs of persons with disabilities neutral has not been able to contribute in improving the quality of service and has not been able to meet the perception and expectations of service users Braille Corner. The application of Braille Corner Service Innovation also proved to have a significant effect on Library Performance. The potential and development carried out by

the Malang City library contribute to providing good performance. This can be seen in the development of equipment and facilities for the blind. The Service Quality variable has also proven to have a significant effect on Library Performance. Indicators of guarantee on service quality contributed the most to improving the performance of libraries in support of the existence of Braille Corner Service innovation in the Office of Public Library and Regional Archives of Malang. It shows that officer responsiveness pay attention to user's complaint, officer give assistance to the user, service officer as expected of the user, and officer's willingness to explain how to use collection able to give contribution in improving library performance in Public Library and Archive Office of Malang City.

5.2 Implications

The obstacles found in this study and recommendations that can be made include the lack of variety of braille collections owned can be overcome by cooperating with various braille publishing centers to meet the variations of braille books can be fulfilled, the unavailability of means of transportation that facilitate the use of neutral libraries to come and use the Braille Corner Service can be overcome by providing shuttle facilities to persons with disabilities who are under the coordination of a community or foundation, the limited human resources with the skills to provide services for the disabled disability can be overcome by training all functional staff so that they can provide optimal service to the optimally disabled users.

5.3 Study limitation and recommendation for future work

The suggestion that can be done by the next researcher is to look at other variables not found in this study, because in this study the ability of the model to explain the relationship between the three variables is still 80.4% and the remaining 19.6% is explained by variables Another allegedly influences the Implementation of Braille Corner Services Innovation at the Department of Public Library and Regional Archives of Malang City. Other variables that can be studied are such as service satisfaction or loyalty of users from Malang City library.

6. References

1. Agustin, Hesty Putri. Kualitas Pelayanan Bagi Pemustaka Disabilitas Netra di Braille Corner Perpustakaan Umum Kota Malang, 2017. Retrieved from <http://repository.unair.ac.id/68365/>
2. Alornyeku, Felix Kwame. The Impact of Bureaucracy on Public Service Delivery: A Study of Kumasi Metropolitan Assembly, 2011. Retrieved from <http://ir.knust.edu.gh/bitstream/123456789/4326/1/>
3. Aucoin, Peter. The Design of Public Organizations for the 21st Century: Why Bureaucracy Will Survive in Public Management. *Journal of Canadian Public Administration*. 2008; 40(2):290-306.
4. Bommert, Ben. Collaborative Innovation in the Public Sector. *Journal of International Public Management*. 2010; 11(1):15-33.
5. Daglio M, Gerson D, Kitchen H. Building Organizational Capacity for Public Sector Innovation. Background Paper

- prepared for the OECD Conference Innovating the Public Sector: from Ideas to Impact, Paris. 2015, pp12-13.
6. Damanpour F, Schneider M. Characteristics of innovation and innovation adoption in public organizations: Assessing the role of managers. *Journal of Public Administration Research and Theory*. 2009; 19(3):495-522.
 7. Dhewanto, Wawan, *et al.* Manajemen Inovasi: Peluang Sukses Menghadapi Perubahan. Yogyakarta: Andi, 2014.
 8. Firdaus, Ferry, Iswahyudi, Fajar. Aksesibilitas Dalam Pelayanan Publik Untuk Masyarakat Dengan Kebutuhan Khusus. Jakarta: Pusat Kajian Manajemen Pelayanan Administrasi Negara, 2008.
 9. Hallin, Carina Antonia, Andersen, Torben Juul. *The Adaptive Organization and Fast-Slow Systems*, 2017. Retrieved from <http://business.oxfordre.com/view/10.1093/acrefore/9780190224851.001.0001>
 10. Hardiyansyah. Kualitas Pelayanan Publik Konsep Dimensi Indikator dan Implementasinya. Yogyakarta: Gava Media, 2011.
 11. Jelassi, Tawfik, Avagyan, Karine, Perrinjaquet, Michelle. Leading in Turbulent Times, 2017. Retrieved from <https://www.imd.org/research/insightsimd/leading-in-turbulent-times/>
 12. Lonescu, Luminita, Lăzăroiu, George, Losif, Gheorghe. Corruption and Bureaucracy in Public Services. *Journal of Amfiteatru Economic*. 2012; 14(6):665-679.
 13. Noor, Irwan. Desain Inovasi Pemerintahan Daerah. Malang: UB Press, 2013.
 14. Rinawati, Elizabeth, Sri Lestari., Albertoes, Pramoekti. Kepuasan Mahasiswa Tunanetra Terhadap Layanan Difabel Corner di Perpustakaan UIN Sunan Kalijaga. *Inklusi: Journal of Disability Studies*. 2017; 4(2):239-270.
 15. Rugut, Emmy J, Osman, Ahmed A. Reflection on Paulo Freire and Classroom Relevance. *American International Journal of Social Science*. 2013; 2(2):23-28.
 16. Sarwono, Jonathan. Path Analysis Teori, Aplikasi, Prosedur Analisis Untuk Riset Skripsi, Tesis dan Disertasi (Menggunakan SPSS). Jakarta: PT. Elex Media Komputindo, 2012.
 17. Singarimbun, Masri dan Effendi, Sofian. Metode Penelitian Survai. Jakarta: LP3ES, 2006.
 18. Suaedi, Falih, Wardiyanto, Bintoro. Revitalisasi Administrasi Negara (Reformasi Birokrasi dan e-Governance). Yogyakarta: Graha Ilmu, 2010.
 19. Sutarno NS. Perpustakaan dan Masyarakat. Jakarta: Yayasan Obor Indonesia, 2006.
 20. Suwarno, Yogi. Inovasi di Sektor Publik. Jakarta: STIA-LAN, 2008.
 21. Syafaruddin, Asrul, Mesiono. Inovasi Pendidikan (Suatu Analisis Terhadap Kebijakan Baru Pendidikan). Medan: Perdana Publishing, 2012.
 22. Tjiptono, Fandy. Prinsip-prinsip Total Quality Service (TQS). Yogyakarta: Andi, 2004.
 23. Walker RM, Damanpour F, Devece CA. Management innovation and organizational performance: The mediating effect of performance management. *Journal of Public Administration Research and Theory*. 2011; 21(2):367-386.
 24. Wibawanti, Yuni. Model Pengukuran Kinerja Perpustakaan PTS X Berdasarkan ISO 11620:2008 dan SNP 010:2011, diakses pada tanggal 29 Maret 2018 dari, 2015. <http://journal.lppmunindra.ac.id/index.php>.
 25. Wiratningsih, Ria. Pustakawan di Era Teknologi Informasi dan Komunikasi (New Paradigm), 2010. Retrieved from <https://riah.staff.uns.ac.id/2010/03/10>