

## **HR-Commitment and Digital Organizational Communication To Improve the Digital-Quality Services in Private Universities**

**Iwan Ardiansyah<sup>1</sup>, Taufiq Rahmat<sup>2\*</sup>, Masluh<sup>3</sup>, Heri<sup>4</sup>, Diah Apriliani<sup>5</sup>**

<sup>1,2,3</sup>Department of Management, Faculty of Economics, Universitas Al Ghifari, Bandung Indonesia

<sup>4</sup>Department of Public Administration, Faculty of Social and Political Sciences, Universitas Al-Ghifari, Bandung Indonesia

<sup>5</sup>Department of International Relations, Faculty of Social and Political Sciences, Universitas Al-Ghifari, Bandung Indonesia

\*Corresponding author E-mail: [taufiqrahmat@unfari.ac.id](mailto:taufiqrahmat@unfari.ac.id)

### **Abstract**

The main issue in this research is the weak Quality of private universities in utilizing digital media in the industrial era 4.0, which leads to the formation of professionalism in the form of an innovative campus, which according to researchers, is influenced by organizational Commitment and digital organizational communication. Target group private universities in Bandung. This study's descriptive survey research design is based on a verification methodology. Data was collected through survey techniques by distributing questionnaires to as many as 69 respondents, all employees. Analysis in data processing using path analysis. It is based on the findings of the verification analysis, with  $r^2 = 0.587$ , or 58.7%, as the coefficient of determination. The results show that the Quality of digital services is influenced by organizational Commitment and digital communication, both simultaneously and simultaneously. In comparison, there is still the influence of other external factors, which has not been studied, and is 41.3% academically recognized. Research findings also reveal that optimizing digital services can be done by first improving the Commitment of human resources to utilizing digital media in communication.

Keywords: Smart University, Commitment, E-ServQual, Digital Communication, HRM

### **Abstrak**

Isu utama dalam penelitian ini adalah kualitas minggu perguruan tinggi swasta dalam memanfaatkan media digital di era industri 4.0, yang mengarah pada pembentukan profesionalisme dalam bentuk kampus yang inovatif, yang menurut peneliti dipengaruhi oleh Komitmen organisasi dan digital komunikasi organisasi. Kelompok sasaran perguruan tinggi swasta di Bandung. Desain penelitian survei deskriptif penelitian ini didasarkan pada metodologi verifikasi. Pengumpulan data dilakukan melalui teknik survey dengan menyebarkan kuesioner kepada sebanyak 69 responden kepada seluruh karyawan. Analisis dalam pengolahan data menggunakan analisis jalur. Hal ini didasarkan pada temuan analisis verifikasi, dengan  $r^2 = 0,587$ , atau 58,7%, sebagai koefisien determinasi. Hasil penelitian menunjukkan bahwa kualitas layanan digital dipengaruhi oleh Komitmen organisasi dan komunikasi digital, baik secara simultan maupun simultan. Sebagai perbandingan, masih terdapat pengaruh faktor eksternal lain yang belum diteliti sebesar 41,3% secara akademis. Hasil penelitian juga mengungkapkan bahwa optimalisasi layanan digital dapat dilakukan dengan terlebih dahulu meningkatkan Komitmen sumber daya manusia untuk memanfaatkan media digital dalam komunikasi.

Kata kunci : Universitas Cerdas, Komitmen, E-ServQual, Komunikasi Digital, HRM

## **INTRODUCTION**

Digital and communication technology that grows with high acceleration can create new forms of higher Education with learning techniques via the internet or Virtual universities (Ryan et al., 2013). Digitalisation has demanded that every University anywhere, including in Indonesia, be able to prepare to become a cyber class model (Gueye & Exposito, 2020). Higher Education can apply smart campus

\* Copyright (c) 2023 **Iwan Ardiansyah et.al**

This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).

Received: October 9, 2022; Revised: February 19, 2023; Accepted: February, 2023

technology, which refers to campus facilities that support all activities of the academic community using information technology as a supporter of the smart campus. Education can be implemented more modernly by applying the technology contained in the smart campus concept (Atif et al., 2015).

Any development requires the support of sufficient, skilled, competent human resources (HR) (Taufiq Rahmat & Hadian, 2019). Hyper-competitive conditions in the industrial era 4.0 (Götz, 2019), in forming a smart campus, Quality human resources are needed, namely having specific professional and technical abilities whose presence in all lines of work will give birth to many advantages. Therefore, in the framework of human resource management, leaders must improve human resources' varied potentials to enable them best to achieve performance (Beer et al., 1984; Chanland & Murphy, 2018). To put the Organization in a better position than other organizations. HR development is fundamentally an investment. Investment in human capital development is an investment to increase the productive potential of humans (Cascio & Boudreau, 2010), which includes delivering excellent services to service customers. With good HR management, organizations will have competitive strengths. They will be difficult to imitate, so the sources of university success, such as production process technology, Market protection, access to financial resources and economies of scale should be more efficient.

In higher education, efforts to create a good (quality) image in customers' eyes are primarily determined by the Quality of human resources he has. The superiority of the Quality of human resources is marked by the synergy between the mastery of science and skills in utilizing information technology to serve customers' needs (users). Technology is changing very quickly, so efforts to improve the Quality of human resources will continually be improved in various ways and strategies (DeCenzo et al., 2016). Services require innovation in the form of digital services by utilizing optimal information and communication technology (Suherman, 2020), with the hope of increasing the role of universities in carrying out their duties and authorities in educational services.

According to (Goetsch & Davis, 2014), Quality is a dynamic state characterized by people, processes, products, services, and the environment that meet or exceed expectations. Service quality is the level of excellence expected and controls over the level of excellence to meet customer expectations (Taufiq Rahmat et al., 2014) which are determined by the suitability of desires resulting from the comparison of desires and perceived performance of customers (Goetsch & Davis, 2000). Customers evaluate service quality based on five factors (Zeithaml et al., 2000), which are as follows:

1. Tangibles. Physical buildings, equipment, people, and communication channels;
2. Empathy is the simplicity of establishing effective communication ties and understanding the demands of clients;
3. Reliability. The capacity to perform the promised service promptly and satisfactorily;
4. Responsiveness. The desire of employees to assist customers and deliver prompt service;
5. Assurance. The employees' ability, politeness, and trustworthiness are devoid of risk or question (Taufiq Rahmat et al., 2021; Taufiq Rahmat et al., 2022; Taufiq Rahmat & Resmiati, 2021).

In addition, wholehearted service through information technology provides sincerity and responsibility accompanied by a happy heart, such as handling customer complaints and the consequences of providing services with full awareness and understanding of customer problems. Organizations need human resources committed to providing services (Chicu et al., 2019). Organizational Commitment is the level of confidence in HR to accept the goals organization so that they want to stay and be part of the Organization (Peccei & Rosenthal, 1997). Organizational Commitment is every person's deep and powerful affiliation to an organization's aims and values and their role in achieving these goals and ideals (Meyer & Allen, 2001). Commitment includes member pride, loyalty, and members' willingness to

support the Organization in the form of attitudes that reflect feelings of liking or disliking the Organization. Someone who is committed to taking sides with the Organization's goals and desires to maintain his membership. Three components of organizational Commitment (Allen & Meyer, 1996):

1. Affective Commitment is connected to citizens' sense of belonging to the Organization, affiliation with the Organization, and engagement in organizational activities. Organizational members with a deep affective Commitment can stay with the Organization because they have this desire.
2. Continuance commitment is connected to the realization that members of the Organization would suffer losses if they quit. Organizational members with a high level of ongoing Commitment will remain members since they must become members.
3. Normative Commitment conveys a feeling of connection to continue within the Organization. Organizational members with high normative Commitment will continue to be members of the Organization because they believe they have to remain in the Organization.

Each employee has a different basis and behavior depending on the organizational Commitment (Caldwell et al., 1990). Employees with high Commitment will make maximum effort and a strong desire to achieve organizational goals. On the other hand, employees who have low Commitment will make efforts that are not optimal in forced circumstances. Human resources committed to their Organization will be more able to survive as part of it than those not committed to it.

The complexity of student demands requires the University to improve the work process in providing attention and service to the broader community. On the other hand, the University must strive to improve communication within the Organization in a professional manner that relies on the demands of optimal academic services (Gueye & Exposito, 2020). Furthermore, communication is the lifeblood of the implementation of organizational activities, and communication also allows orders or instructions and so on so that organizational goals will be achieved.

Humans communicate more often through digital media because it makes it easier to interact and communicate without limits (Rafaeli, 1988). The presence of the internet as new media communication makes information and messages can be conveyed globally quickly. With this convenience, millions of people worldwide interact using the internet, so communication is more effective than digital communication.

Organizations cannot survive in the absence of communication. Employees have no idea what their coworkers are up to if there is no contact. Leaders cannot receive information or coordinate without communication; without communication, the Organization would collapse. In both formal and informal groups, the sending and receiving of various messages inside an organization are referred to as organizational communication. Formal communication is communication that is sanctioned by the Organization and has an organizational focus (Cameron & McCollum, 1993). It describes the organizational structure, productivity, and the different duties that must be completed inside the Organization: memoranda, policies, statements, conferences, and official documents. Informal communication is acceptable in society. The focus is not on the Organization but on its citizens.

Provides an overview of the direction of communication that usually occurs in an organization (Radovic Markovic & Salamzadeh, 2018), namely:

1. Downward communication, such as management rules, orders, and formal memos, will move from higher levels to the bottom levels of the business.
2. Upward communication; Support activities, meetings, and grievances processes are examples of upward communication from the bottom to upper levels of a company (Guo & Sanchez, 2005).

3. Horizontal communication; to coordinate and consolidate varied organizational activities, horizontal communication, or communication that flows between organizational functions, is essential.
4. Diagonal communication is the exchange process between organizational levels and functions; it is vital when individuals cannot interact through regular top-down and horizontal communication channels (Zmud et al., 1990).

Organizational communication through digital media strongly influences achievement performance and service quality in an institution or Organization (Ahmad & Zhang, 2020). Digital communication is essential in creating and maintaining service performance measurement systems (Dileep, 2020). Communication should be from various directions, from top-down, bottom-up, and horizontally inside and across organizations (Gorla et al., 2010).

The rapid development of the world of technology and information has made the internet a communication tool in great demand by the public behind the change in higher education governance from conventional to modern and all-digital (Quinn et al., 2020). With all their advantages and features, E-service and digital communication are proven to provide service facilities that are not inferior to other media; the cluster of fostered private universities is still seen as not very responsive and adaptive to these flows (Gungor & Lambert, 2006). So it is necessary to research the internet media used in the communication process and higher education services, with an essential actor in HR commitment.

## RESEARCH METHOD

The descriptive research method was applied in this study, including a verification methodology (Zook & Pearce, 2018). This descriptive approach is used to answer questions about all study variables separately. Simultaneously, the verification approach seeks to establish the causal link between variables by hypothesis testing using a statistical computation, such that the evidence findings demonstrate whether the hypothesis is rejected or accepted. Its study's independent variables are organizational communication and organizational Commitment. The dependent variable in this study was Service Quality. The population in this study were all employees of private universities, totaling 69 people, taken with the employee census (Sugiyono, 2018). This study uses the entire population to serve as the object of research.

The data used by the researcher is qualitative data obtained from questionnaires and then converted to quantitative. The author examined the ordinal data for this quantitative data, which was calculated as a suspension for each question using a Likert scale score (Joshi et al., 2015). The descriptive analysis approach was applied in this study. The descriptive analysis approach explains all research variables by finding the average of each research instrument (see table 1).

**Table 1 : Criteria for Interpretation of Research Variable Conditions**

Average Score	Interpretation
4.2 – 5.0	Very good
3.4 – 4.1	Well
2.6 – 3.3	Pretty good
1.8 – 2.5	Not good
1.0 – 1.7	Not very good

Source : (Meyers et al., 2016)

Next, verification analysis was carried out using path analysis by calculating the direct relationship of the independent variables to the dependent variables (Xie et al., 2020). The path diagram can be described as follows:

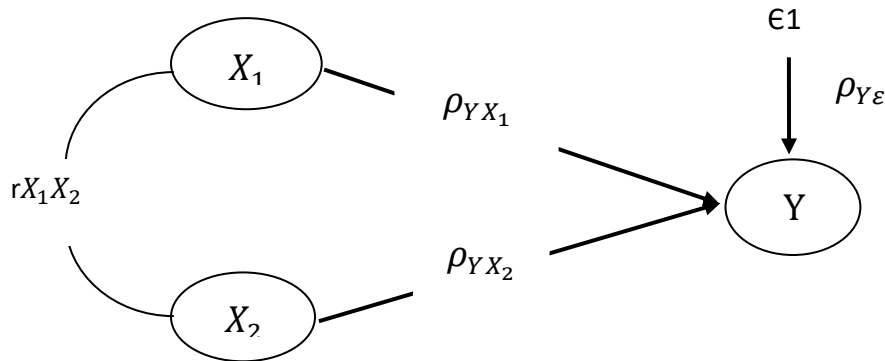


Figure 1: Research Paradigm (Author, 2022)

The figure 1 above is a variable diagram that reflects the relationship between variables and the influence of variable X on variable Y.

The picture shows that X<sub>1</sub> with Y and X<sub>2</sub>-Y is a causal relationship, while the relationship between X<sub>1</sub> and X<sub>2</sub> is correlational. The structural equation formed is  $Y = \rho_{yx_1} X_1 + \rho_{yx_2} X_2 + \epsilon$

The picture above is a variable diagram that reflects the relationship between variables and the influence of variable X on variable Y. The picture above shows that between X<sub>1</sub> with Y, and X<sub>2</sub> with Y is a causal relationship. During the relationship X<sub>1</sub>, X<sub>2</sub> is a correlational relationship. The structural equation formed is  $Y = \rho_{yx_1} X_1 + \rho_{yx_2} X_2 + \epsilon$

## RESULTS AND DISCUSSION

### Descriptive Analysis

The finding of the variable levels of Organizational Commitment, Communication, and Service Quality is measured from a questionnaire score of 69 respondents; the results are as follows:

Table 2: Descriptive Analysis Results

Variable	Average score	tiers
Organizational Commitment (OC)	4.16	Good / High
Digital Organizational Communication (D-OC)	3.98	Good / High
Digital Service Quality (D-SQ)	4.04	Good / High

In table 2 and figure 1 above, it can be seen that the average score of the organizational commitment variable (D-OC) is 4.16, so it can be concluded that the level of organizational Commitment according to the respondents is included in the assessment with a high classification. The indicator that has the most significant contribution to the organizational commitment variable is the item regarding " Employees feel obliged to survive in the Organization (ought to) like their own family (Community). While the smallest contribution was regarding "Employees have the view that other organizations do not necessarily provide future commitments " and " Rationally, organizations provide benefits that are in line with employee expectations. " The results of the descriptive analysis also show that organizational Commitment is included in the most superior category when compared to other variables. This can be illustrated in the form of Figure 2 as follows: the average score of the digital organizational communication variable (D-OC)

is 3.98, so it can be concluded that the level of digital organizational communication according to the respondents is included in the assessment with a high classification. The item with the largest contribution was "Employees express opinions and suggestions to the leadership openly," while the smallest contribution was "Employees always coordinate with coworkers. The average service quality variable (D-SQ) score is 4.04, so it can be concluded that the level of service quality according to the respondents is included in the assessment with a high classification. The item that has the most significant contribution to the service quality variable is the item regarding the Organization always maintaining the tidiness and cleanliness of the interior of the building to provide comfort for students. Meanwhile, the minor contribution regarding employees gave special attention and created magic moments for students.

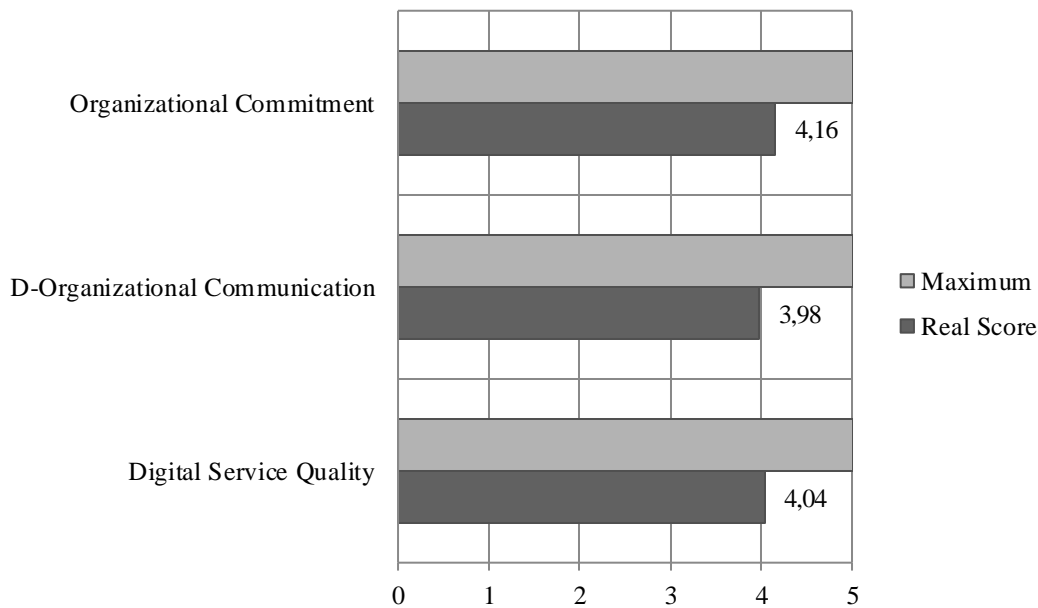


Figure 2 : Chart of the results of descriptive analysis between variables (Author, 2022)

### Path Analysis

To determine the close relationship between the variables Organizational Commitment (OC), Digital Organizational Communication (D-OC), and Digital Service Quality (D-SQ) using Pearson's Product Moment Correlation. The results of the calculation of the correlation analysis between variables are presented in Table 3.

Table 3 : Testing Coefficient Correlation between Variables X and Y

No	Variable	Rcount	Sig	Conclusion	Category
1	X <sub>1</sub> X <sub>2</sub>	0.721	0.000	Significant	Strong
2	X <sub>1</sub> Y	0.717	0.000	Significant	Strong
3	X <sub>2</sub> Y	0.704	0.000	Significant	Strong

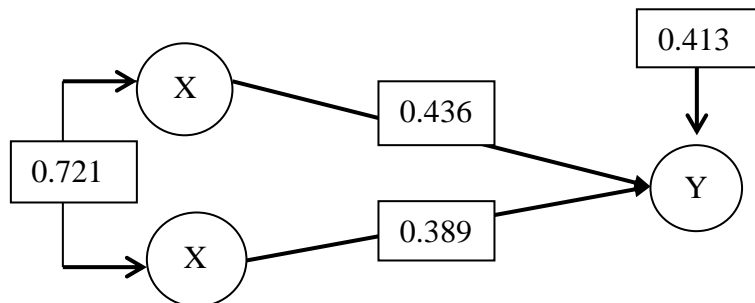
Testing the data using the coefficient of determination is intended to determine how much influence the independent variable (X) has, namely organizational Commitment and digital organizational communication, on the dependent variable (Y), namely Digital Service Quality. This test is done by using SPSS 21.00 Software For Windows.

**Table 4: Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	17,360	4.188		4.145	.000
1 OC	.910	.238	.436	3.826	.000
D-OC	.905	.265	.389	3,413	.001

a. D. Variable: D-SQ

From the data in table 4, it is known that the influence of the independent variable, namely organizational Commitment (OC) and digital organizational communication (D-OC), on the dependent variable, namely Digital Service Quality is 0.587, while the external influence or error is 0.413. The quantities that have been calculated are depicted in path diagram 1, as shown below.



**Diagram 1: Path Coefficient**

The Structural Model of Organizational Commitment and Digital Organizational Communication on Digital Service Quality are:

$$Y = 0.436 X_1 + 0.389 X_2$$

In Diagram 1, the path coefficient of the organizational Commitment variable and digital organizational communication on Digital Service Quality is positive, meaning that these two variables positively influence Digital Service Quality. From the results of this path analysis, the path coefficient of the organizational Commitment variable to Digital Service Quality is 0.436, while digital organizational communication to Digital Service Quality is 0.389. Thus, if you only consider the organizational commitment variable, the digital organizational communication variable is considered constant. If the organizational Commitment is increased by one unit, it will increase the Digital Service Quality by 0.436 units. Meanwhile, digital organizational communication will increase the Quality of digital services by 0.389 units.

**Table 5: Percentage of the Effect of Organizational Commitment**

Description	Calculation	Percentage
Direct Effect (DE) of OC on D-SQ	$(0.436)^2 =$	19%
Indirect Effect (IE) of OC through D-OC on D-SQ	$0.436 \times 0.721 \times 0.389 =$	12.3%
Total Effect (TE) Organizational Commitment		31.3%

Table 5 for The direct effect of organizational Commitment to Digital Service Quality is 19%, while the indirect effect of organizational Commitment through digital organizational communication is 12.3%. So the total organizational Commitment to Digital Service Quality is 31.3%. Considering the

structural model's organizational commitment variable will increase the Digital Service Quality by 31.3%. From the test results, this variable is significant at the 95% confidence level.

**Table 6: Percentage of the Effect of Organizational Commitment**

Description	Calculation	Percentage
Direct Effect (DE) of D-OC on D-SQ	$(0.389)^2 =$	15.1%
Indirect Effect (IE) of D-OC through OC on D-SQ	$0.275 \times 0.780 \times 0.562 =$	12.3%
Total Effect (TE) digital organizational communication		27.4%

Table 6 for The direct effect of digital organizational communication on digital service quality is 15.1%, while the indirect effect of digital organizational communication through organizational Commitment is 12.3%. So that the total communication of digital organizations on the Quality of digital services is 27.4 %; this means that considering the digital organizational communication variable in the structural model, it will increase the Digital Service Quality by 27.4%, and from the test results, this variable is significant at the 95% confidence level.

**Table 7: Determination Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.767 <sup>a</sup>	0.587	0.575	6.32905

a. Pred. : (Constant), D-OC, OC

Table 7 shows The relationship between Organizational Commitment and Digital Organizational Communication on Digital Service Quality at private universities in Bandung using path analysis shows a significant positive effect of the variable Organizational Commitment and Digital Organizational Communication on Digital Service Quality at the 95% level. The most significant influence is given by the Organizational Commitment variable of 31.3 %, while the influence of the digital organizational Communication variable is 27.4%, while the external influence or error is 41.3%. So it can be concluded that the model form is included in the strong category so that in this study, the variables of Organizational Commitment and Digital Organizational Communication are appropriately used to measure Digital Service Quality in private universities.

## CONCLUSION

The study results indicate that organizational Commitment in private universities is included in the high quantile. Statements with a contribution biggest is an item regarding Employees feeling Required to endure in the Organization (ought to) like family (Community). Meanwhile, what must be improved is the view that organizations yet give future commitments and rational organizations provide appropriate benefits with hope for employees. According to this research, digital organizational communication is included in the assessment with a high classification. Statements contributing biggest to variable communication organization is the item regarding employees conveying opinion and advice to a leader by open.

Digital Service Quality at private universities, according to this, is included in research with a high classification. Statements that contribute most to variable quality service an item regarding the Organization always guarding neatness and cleanliness of the interior of the building to provide comfort to the student. What needs to be improved is special attention and the ability to create magic moments against the student. Meanwhile, what needs to be improved is the level of coordination with colleagues' work.

Based on the results of the verification analysis, it can be concluded that partially the commitment organization has a positive and significant influence on quality service. Influence\_ direct from commitment



organization to quality service is more significant than influence not directly through communication organization. Digital organizational communication also has a positive and significant influence on quality service, with a direct influence more remarkable than the influence not direct communication organization through commitment organization.

The actual influence of the variable Commitment Organization and Communication Organization to the structural model Quality Service showed by significant coefficient determination  $r^2 = 0.587$  or 58.7%, while influence outside or the mistake by 41.3%. So could be a conclusion that the model formed included in category firm, so in the study, this variable Commitment Organization and Communication Organization appropriately used to measure Quality Simultaneous service and still has other influences that have not been included in this study.

## REFERENCES

- Ahmad, W., & Zhang, Q. (2020). Green purchase intention: Effects of electronic service quality and customer green psychology. *Journal of Cleaner Production*, 267, 122053.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative Commitment to the Organization: An examination of construct validity. *Journal of Vocational Behavior*, 49(3), 252–276.
- Atif, Y., Mathew, S. S., & Lakas, A. (2015). Building a smart campus to support ubiquitous learning. *Journal of Ambient Intelligence and Humanized Computing*, 6(2), 223–238.
- Beer, M., Spector, B. A., Lawrence, P. R., Mills, D. Q., & Walton, R. E. (1984). *Managing human assets*. Simon and Schuster.
- Caldwell, D. F., Chatman, J. A., & O'reilly, C. A. (1990). Building organizational Commitment: A multifirm study. *Journal of Occupational Psychology*, 63(3), 245–261.
- Cameron, G. T., & McCollum, T. (1993). Competing corporate cultures: A multi-method, cultural analysis of the role of internal communication. *Journal of Public Relations Research*, 5(4), 217–250.
- Cascio, W., & Boudreau, J. (2010). *Investing in people: Financial impact of human resource initiatives*. Ft Press.
- Chanland, D. E., & Murphy, W. M. (2018). Propelling diverse leaders to the top: A developmental network approach. *Human Resource Management*, 57(1), 111–126.
- Chicu, D., del Mar Pàmies, M., Ryan, G., & Cross, C. (2019). Exploring the influence of the human factor on customer satisfaction in call centres. *BRQ Business Research Quarterly*, 22(2), 83–95.
- DeCenzo, D. A., Robbins, S. P., & Verhulst, S. L. (2016). *Fundamentals of human resource management*. John Wiley & Sons.
- Dileep, G. (2020). A survey on smart grid technologies and applications. *Renewable Energy*, 146, 2589–2625.
- Goetsch, D. L., & Davis, S. B. (2000). Quality management. *Introduction to Total Quality Management for Production, Processing, and Services*.
- Goetsch, D. L., & Davis, S. B. (2014). *Quality management for organizational excellence*. pearson Upper Saddle River, NJ.
- Gorla, N., Somers, T. M., & Wong, B. (2010). Organizational impact of system quality, information quality, and service quality. *The Journal of Strategic Information Systems*, 19(3), 207–228.
- Götz, M. (2019). The industry 4.0 induced agility and new skills in clusters. *ФОРСАЙМ*, 13(2 (eng)), 72–83.

- Gueye, M., & Exposito, E. (2020). *University 4. 0 : The Industry 4 . 0 paradigm applied to Education. January.*
- Gungor, V. C., & Lambert, F. C. (2006). A survey on communication networks for electric system automation. *Computer Networks, 50*(7), 877–897.
- Guo, L. C., & Sanchez, Y. (2005). Workplace communication. *Organizational Behavior in Health Care, 4*, 77–110.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology, 7*(4), 396.
- Meyer, J. P., & Allen, N. J. (2001). Organizational Commitment. *Personnel Psychology and Human Resource Management: A Reader for Students and Practitioners*, 289–342.
- Meyers, L. S., Gamst, G., & Guarino, A. J. (2016). *Applied multivariate research: Design and interpretation.* Sage publications.
- Peccei, R., & Rosenthal, P. (1997). The antecedents of employee commitment to customer service: evidence from a UK. *The International Journal of Human Resource Management, 8*(1), 66–86.
- Quinn, R. E., Clair, L. S. S., Faerman, S. R., Thompson, M. P., & McGrath, M. R. (2020). *Becoming a master manager: A competing values approach.* John Wiley & Sons.
- Radovic Markovic, M., & Salamzadeh, A. (2018). The importance of communication in business management. *Radovic Markovic, M., & Salamzadeh, A.(2018). The Importance of Communication in Business Management, The 7th International Scientific Conference on Employment, Education and Entrepreneurship, Belgrade, Serbia.*
- Rafaeli, S. (1988). From new media to communication. *Sage Annual Review of Communication Research: Advancing Communication Science, 16*, 110–134.
- Rahmat, T, Nuryani, E., Siswanto, D., & Undang, G. (2021). ServQual and WebQual 4.0 for usability check academic information system of private University. *Journal of Physics: Conference Series, 1869*(1), 12097.
- Rahmat, Taufiq, Ardiansyah, I., & Turyandi, I. (2014). *Pengaruh Total Quality Management (TQM) dan Sevice Quality Terhadap Kinerja (Studi Kasus Pada Kantor Bea Cukai Pabean A Bandung).* Universitas Al-Ghifari.
- Rahmat, Taufiq, & Hadian, D. (2019). *Pengaruh Servant Leadership dan Komitmen Afektif Terhadap Organizational Citizenship Behavior (OCB) Serta Implikasinya Terhadap Kinerja.* STIE Pasundan.
- Rahmat, Taufiq, & Resmiati, E. N. (2021). ServQual dan Customer Satisfaction Index (CSI): Mengukur Tingkat Usabilitas E-Learning Pada Pembelajaran Daring Masa Adaptasi Kebiasaan Baru (AKB) Pandemi Covid-19 di Universitas Al-Ghifari. *Fair Value: Jurnal Ilmiah Akuntansi Dan Keuangan, 4*(5), 1904–1916.
- Rahmat, Taufiq, Turyadi, I., Ardiansyah, I., Supriyatna, T., Taryaman, E., Tanjung, M., Karsah, A. M., Apriliani, D., & Halimah, O. S. (2022). University 4.0 Performance: Improvement of Learning Management System Using E-ServQual Post-Covid-19 Pandemic. *4th International Conference on Innovation in Engineering and Vocational Education (ICIEVE 2021), 261–266.*
- Ryan, S., Scott, B., Freeman, H., & Patel, D. (2013). *The virtual University: The internet and resource-based learning.* Routledge.
- Sugiyono, M. S. (2018). *Metodologi Penelitian Dilengkapi dengan Metode R&D.* Deepublish.
- Suherman, D. (2020). Penyelenggaraan E-Government di Kabupaten Bandung Sebagai Upaya Meningkatkan Kualitas Pelayanan Publik. *Publica: Jurnal Pemikiran Administrasi Negara, 12*(2), 101–111. <https://doi.org/10.15575/jpan.v12i2.10300>
- Xie, R., Zhao, Y., & Chen, L. (2020). Structural path analysis and its applications: literature review. *National Accounting Review, 2*(1), 83–94.
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2000). *A conceptual framework for understanding e-service quality: implications for future research and managerial practice* (Vol. 115). Marketing Science Institute Cambridge, MA.

- Zmud, R. W., Lind, M. R., & Young, F. W. (1990). An attribute space for organizational communication channels. *Information Systems Research*, 1(4), 440–457.
- Zook, K. L., & Pearce, J. H. (2018). Quantitative descriptive analysis. In *Applied sensory analysis of foods* (pp. 43–71). Routledge.