ICT Competence, Organizational Culture, Motivation, and Task Performance among the Employees of One Polytechnic University Branch

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Abstract. This study identified the ICT Competence, Organizational Culture, Motivation, and Task Performance among the Employees of Polytechnic University of the Philippines-Ragay, Camarines Sur Branch. Descriptive-survey was conducted for the 38 employees of the said university branch for the Second Semester of Academic Year 2019-2020. It was revealed that the employees' competence in using ICT resources in a higher education institution is within Skillful to Much Skillful levels. It often observed the different components of Organizational Culture as they are often motivated and often performed in their organization. Considering that the ICT competence of the employees is affected by the availability of the ICT resources in the institution and their exposure to the ICT resources. It is also recommended for the higher authority of the university and the Commission on Higher Education to prioritize the procurement of relevant resources, equipment, and facilities related to ICT integration in Higher Education Institutions, and training and skills empowerment of staff of the organization should be regularly conducted.

Keywords: ICT Competence, Organizational Culture, Motivation, Task Performance Employees

1. Introduction

Information and Communications Technology (ICT) in an organization like schools can lead to improvement and attainment of organizational goals as it is used to generate knowledge and improve the organization's coordination and communication. It also improves data transmission, knowledge management, and generation through emails, websites, and social media platforms, improving the data storing and processing, and managing information through information and management systems that can impact the employees' motivation and innovative leadership practice[1]. Through the integration of ICT in government institutions like State University and Colleges (SUCs) are expected to provide public service delivery that is efficient, effective, socially inclusive, and transparent. The employees of the said institution who are using ICT systems, particularly in data management, can redesign the entire organizational process and structure, thus can promote behavioral change that integrates and transforms their organization [2].

The use of innovative ICT resources within an organization promotes opportunities and challenges that can foster organizational culture gearing towards proactive, innovative, and efficient management of strategic management of resources [3]. Aside from that, tacitness, behavior, skills, and competence of employees and their attitude towards ICT integration can help formulate long-decision processes expected of globalization standards [4]. Similarly, [5] identified employees' psychological perspectives and attitudes and their self-efficacy, motivation, knowledge, and skills related to their
level of ICT skills and their utilization. Policy recommendations were established to address the ICT alignment to organizational goals by understanding social, economic, and environmental considerations.

As this study explored motivation and organizational culture being affected by ICT, [6] pointed out that organizational goals should be aligned to the ICT preparedness of the institution or organization and skills of its members to address the socio-incognito environment, the institutional actors, and production environment to promote the interplays between the three actors of change so that better and rapid adoption of ICT in their organization is maximized. Thus, organizations should further understand the skills of their employees needed before the integration and adoption of ICT resources within their organization. It is further noted that promoting work performance in using ICT, particularly employees' soft skills, is a must rather than solely focusing on their technical skills to build their skills, mindset, attitude, and behavior, not just their knowledge of ICT[7]. It is supported by the study of [8] that the innovative performance of employees is affected by their knowledge retention due to trust, innovative culture, absorptive capacity, specialization, and fortifications that will result in their increased commitment, retention, and trust. Furthermore, ICT and other 4.0 technologies could benefit the organization in the long run. Thus industry-level expectations and behavior should be underscored to promote retention among the organization's members [9].

Similarly, to achieve better motivation among faculty and staff, bonuses, promotion, and permanency in work should be afforded, and there should be secured knowledge management to secure the critical areas for improvement, especially among State Universities and Colleges [10]. Likewise, job satisfaction as part of employee's motivation is mediated by ethical leadership, and the ethics within the organization should be employed in the recruitment and promotional plans wherein those more skillful and more qualified individuals should be hired to foster job satisfaction among seasoned employees, thereby promoting organizational commitment, and culture of hard work and collaboration[11]. In terms of job satisfaction and motivation, [12] found out that employees’ job performance and turnover intentions and the organization's leadership are affected by how the entire organization achieves their goals. The latter results in worker's intention to leave their job if the demotivated employees will not correctly support. Thus innovation within the organization is expected to develop through the use of innovative technologies [13], [14] to improve employee’s motivation to learn new things like ICT skills[15]. Therefore, this study aimed to identify the ICT Competence, Organizational Culture, Motivation, and Task Performance among One Polytechnic University Branch employees.

2. Methodology

The descriptive research design was used in this research and applied the purposive sampling technique as this study focused only on the regular employees (12 staff and 23 faculty members). It covers only the convenient and accidental sampling of the 35 employees of the Polytechnic University of the Philippines-Ragay, Camarines Sur Branch during the School Year 2019-2020. Informed consent and study permits were obtained before the actual conduct of the study.

The objective of this study is to identify the employees’ competence in ICT in terms of Basic Computer Operations, Word Processing or MS Word, Spreadsheet or MS Excel, PowerPoint operations, Internet Skills, and Equipment Manipulation; their Organizational Culture in terms of Management Style, Working Relationship, Goal Clarity, Empowering Participation and Organizational Commitment. It also dealt with their sources of Motivation and their Task Performance. A 165 items researcher-made instrument was used in gathering the data, and its interpretation was ascertained using descriptive statistics. Moreover, to avoid bias and preserve the integrity of the data, the researchers utilized the average means of the entire population of the study.
3. Result and Discussion

Based on the analysis and interpretation of data, the following were ascertained:

### 3.1 The Employees’ competence in Information and Communications Technology

| Table 1. The Employees’ Competence in ICT |
|------------------------------------------|
| **ICT Competence** | **Mean** | **Verbal Interpretation** |
|------------------------------------------|
| Basic computer operations                | 3.82     | Moderately Skillful       |
| Word Processing skills                   | 3.78     | Skillful                  |
| Spreadsheet applications                 | 3.34     | Skillful                  |
| Internet Operations                      | 3.45     | Skillful                  |
| Equipment Manipulation                   | 3.74     | Moderately Skillful       |
| **Average**                              | 3.63     | Moderately Skillful       |

Based on Table 1, the results revealed that the employees are Moderately Skillful in three out of five indicators of ICT Competence. Details on the highest rated indicators per variable were: For the **Basic Computer Operations**, they are Skillful in scrolling the mouse and keyboard; and pointing, clicking, double-clicking, and selecting text with a mouse, 4.34; saving and navigating control buttons to close/open and save a file; and navigating scroll bar and dialog box, 3.97; they know what drive must use in operating; and saving data and identifying windows screen, 3.89. For the **Word Processing Skills**, the respondents are Moderately Skillful in Identifying and correcting textual errors, 4.03; Saving word documents, 3.95; Creating new documents, 3.92; Inserting symbols and tables, 3.91; Setting margins, 3.77; and Changing text format, 3.77. In the **Spreadsheet applications**, the respondents are Moderately Skillful in deleting rows and columns in a worksheet, 3.76; Inserting rows, columns in a worksheet, 3.70; modifying column widths, row heights, 3.53; while they are Skillful in Saving the spreadsheet specifying the file type, 3.45; and using active cell upon opening spreadsheet program, 3.36. In the **Spreadsheet Operations**, The respondents rated themselves as Moderately Skillful in creating and adding several slides, 3.55 while Skillful viewing from current slides to another, 3.43; Using varied slides views, 3.39; Using the various slide layout, 3.39; and adding text and images to slides, 3.38. For the **Internet Operations**, they are Moderately Skillful in deleting and printing messages, 3.89; Compose and send messages, 3.81; replying to and forwarding messages, 3.81; launching the browser to access the internet, 3.77; attach files to messages, 3.69; finding information using search engines, 3.68; downloading and saving files, such as document, graphics of PDF's from the internet, 3.68; and opening and reading one or more several email messages, 3.62. While for their Competence in **Equipment Manipulation**, they are Moderately Skillful in knowing the fundamentals in using the internet and selected electronic media, 3.82; knowing the basic concepts and functions of computer and communication technologies, 3.78.

While they are Skillful in using various search engines and electronic media for research, 3.45; using productivity software and basic peripherals for general productivity, 3.39; using the internet and electronic media confidently, 3.38; installing and uses specific applications in teaching the subject, 3.36; installing and use of digital devices, 3.23; installing and uses specialize application of offline and online tools, 3.19. According to the initial findings report, the ICT competence of the respondents yielded from Much Skillful to Skillful levels. Thus their skills in using basic internet operations can most likely affect their job performance and motivation, thereby impacting the organizational culture.

### 3.2 The Employees’ Organizational Culture

Table 2 shows the results of a 35 item survey instrument given to Polytechnic University of the Philippines-Ragay, Camarines Sur Branch. Shown below are the highest three rated items per indicator that are ascertained in the study.
**Table 2. The Employees’ Organizational Culture**

| Organizational Culture                | Mean | Verbal Interpretation |
|--------------------------------------|------|-----------------------|
| Management Style                     | 4.20 | Often observed         |
| Working relationship                  | 4.09 | Often observed         |
| Goal clarity                          | 4.30 | Often observed         |
| Empowering participation              | 4.26 | Often observed         |
| Organizational commitment             | 4.23 | Often observed         |
| **Average**                          | 4.22 | Often observed         |

Based on Table 2, the results present the Organizational Culture perceived by the employees of Polytechnic University of the Philippines-Ragay Branch that yielded an average mean of 4.22 or verbally interpreted as Often Observed. In terms of Management Style, the management considers proposed innovations to improve operational effectiveness. 4.59; the department holds fruitful and substantive meetings; 4.51; regular, scheduled organizational reviews and reaffirmation of management commitment to goals 4.43; management solicits feedback or proposals from staff and the general public. 4.35; in the company, employee commitment or standards of quality are expected, 4.22. In terms of Working Relationship, the Members provide regular updates and engage in the strategic plan as needed; Groups ensure healthy performance standards, 4.21; the group communicates effectively within the branch; 4.18; the group has a record of success of consistent operational success; 4.18; and the team is open to and ready for change initiatives; 4.16. For Goal Clarity, there are goals and priorities for the company. 4.58; the Branch management has a firm plan for the future, 4.47; Staff understands the Branch's direction and objectives, 4.45; The Branch addresses critical internal problems, 4.34; and the Branch management has made huge improvements for the Branch, 4.29. For the Empowering Participation, there is explicit coordination between management and staff. 4.34; Employees have the opportunity to explain responsibilities and relationships as they change. 4.32; At all stages, immediate superiors can engage in the goal-setting process. 4.29; Employees are involved in community extension service, 4.26; Senior management spends enough time on advanced dynamic strategy and includes subordinates in the process, 4.21. Moreover, lastly, for the Organizational Commitment, the member or staff is elated that he/she chooses this company over those that he/she was exploring beforehand, 4.47; Individual is asked to go above and beyond what is required in order to assist this institution in being prosperous, 4.39; Employee is proud to tell everyone that he or she is a member of this organization, 4.34; This institution often stimulates the very best of me in terms of job efficiency, 4.34; In order to continue working for this organization, the employee will almost consider every kind of job assignment, 4.24.

As observed in Table 2, the respondents' ratings with regards to their Organizational Culture revolved within Often Observed range. Thus, it can be said that there is a harmonious Organizational Culture in the Polytechnic University of the Philippines, Ragay, Camarines Sur Branch. Thus, it supports the findings of [6] pointed out that organizational goals should be aligned to the ICT preparedness of the institution or organization and skills of its members to address the socio-incognito environment, the institutional actors, and production environment to promote the interplays between the three actors of change so that better and rapid adoption of ICT in their organization is maximized.

### 3.3 The Employees’ Source of Motivation and Task Performance

**Table 3. The Employees’ Source of Motivation and Task Performance**

| Indicator               | Mean  | Verbal Interpretation |
|-------------------------|-------|-----------------------|
| Source of Motivation    | 4.19  | Often observed         |
| Task Performance        | 3.93  | Often observed         |
| **Average**             | 4.06  | Often observed         |

Table 3 shows the results of 25 items for the Source of Motivation and 18 questions for the Task Performance survey instrument given to the employees of Polytechnic University of the Philippines-
Ragay, Camarines Sur Branch. Shown below are the highest three rated items per indicator that are ascertained in the study. Arranged from highest to lowest are the indicators for the Source of Motivation where, Relationship with management, 4.67; Career planning, 4.58; Satisfaction with management, 4.58; Adequate development, 4.56; Utilization of potential growth opportunities in the organization, 4.56; Quality of supervision of Immediate Superior, 4.50; Adequacy of training, 4.44; Level of supervision of Immediate Superior, 4.44; Job security, 4.42; Adequacy of recognition, 4.39; Satisfaction with work position, 4.39; Growth opportunities within the PUP-Ragay, 4.36; Communication by superior, 4.33; Esteem and self-actualization in career, 4.31; Working conditions, 4.31; Utilization of potential skills and growth in delegated functions, 4.28; Work environment satisfaction, 4.25; Career planning, 4.11; Interpersonal relationships within peers and superior, 4.00; Equity in remuneration, 3.94; Promotion opportunities, 3.94; Team spirit, 3.89; Conflict handling/social relations within peers and superior, 3.64; Work pressure, 3.44; and Dissatisfaction with income, 2.36.

It can be noted that the respondents rated their sources of motivation as Often Observed to least observed wherein 16 indicators were rated as Often Observed while the remaining two indicators were rated as Least Observed. Thus, it can be said that the respondents are Often Motivated to work according to their organizational commitment as their organization possesses a harmonious relationship with the management while they are not dissatisfied with their income.

For the Employees Performance, the respondent stated that they were able to schedule their job so that it was done on time, 4.66; kept in mind the work outcome they wanted to accomplish, 4.50; began new tasks when my old tasks have been completed based on their initiatives, 4.53; handled their time well, 4.45; was able to achieve its goals, 4.74; and carried out their work effectively, 4.34.

Therefore, it can be said that the employees manifest good performance as they exhibit ratings within Often Observed to Least Observed. Therefore, integrating ICT within an organization, particularly in the Polytechnic University of the Philippines-Ragay, Camarines Sur Branch, can help employees improve their job performance and motivation as they quickly finish their job on time and can promote a higher level of productivity, motivation, and efficiency and effectiveness within the group. Thus, the preceding implications support the findings of [12] found out that employees' job performance and turnover intentions and the organization's leadership are affected by how the entire organization achieves their goals. The latter results in worker's intention to leave their job if the demotivated employees will not correctly support. Thus innovation within the organization is expected to develop through the use of innovative technologies [13], [14] to improve employee’s motivation to learn new things like ICT skills [15].

4. Conclusion

The employees’ competence in using ICT resources in a higher education institution is within Skillful to Much Skillful levels, and Often Observed the different components of Organizational Culture as they are Often Motivated and Often performed in their organization. Considering that the ICT competence of the employees is affected by the availability of the ICT resources in the institution and their exposure to the ICT resources, it is recommended for the higher authority of the university and the Commission on Higher Education to priority the procurement of relevant resources, equipment, and facilities related to ICT integration in Higher Education Institutions. Likewise, to promote organizational culture, employee motivation, and employee performance, training and skills empowerment of the organization's staff should be regularly conducted. Staff is also recommended to enroll in skills certification and further venture in personal skills and professional development to further contribute to the development of the branch, thereby bringing series of changes within of organization.

References
[1] T. DeStefano, R. Kneller, and J. Timmis, “Broadband infrastructure, ICT use and firm performance: Evidence for UK firms,” J. Econ. Behav. Organ., vol. 155, pp. 110–139, 2018.
[2] E. B. Batara, “Adopting Organizational Structuring for ICT-enabled Government Transformation: Perspectives of City Government Employees in Indonesia and the Philippines,”
Adv. Soc. Sci. Educ. Humanit. Res., vol. 167, pp. 213–227, 2017.

[3] A. Yunis, M., El Kassar, A., Tarhini, “Impact of ICT-based innovations on organizational performance: the role of corporate entrepreneurship,” J. Enterp. Inf. Manag., vol. 30, no. 1, pp. 122–141, 2017.

[4] R. F. Daling, “Accepting ICT integration: A challenge to school and curriculum,” Int. J. Educ. Res., vol. 6, no. 9, pp. 163–180, 2018.

[5] K. Turnip, A. H. Lubis, Sutrisno, and M. S. Lubis, “A review of ICT in government bureaucracy: Psychological and technology skill perspectives,” Int. J. Civ. Eng. Technol., vol. 9, no. 9, pp. 1309–1319, 2018.

[6] M. Jacobsson, H. C. J. Linderoth, and S. Rowlinson, “The role of industry: an analytical framework to understand ICT transformation within the AEC industry,” Constr. Manag. Econ., vol. 35, no. 10, pp. 611–626, 2017.

[7] R. Ibrahim, A. Boerhanoeddin, and K. K. Bakare, “The effect of soft skills and training methodology on employee performance,” Eur. J. Train. Dev., vol. 41, no. 4, pp. 388–406, 2017.

[8] A. Papa, L. Dezi, G. L. Gregori, J. Mueller, and N. Miglietta, “Improving innovation performance through knowledge acquisition: the moderating role of employee retention and human resource management practices,” J. Knowl. Manag., vol. 24, no. 3, pp. 589–605, 2018.

[9] L. S. Dalenogare, G. B. Benitez, N. F. Ayala, and A. G. Frank, “The expected contribution of Industry 4.0 technologies for industrial performance,” Int. J. Prod. Econ., vol. 204, pp. 383–394, 2018.

[10] R. Fiscal, “Knowledge Management of State Universities in the Philippines,” Asia Pacific J. Multidiscip. Res., vol. 7, no. January, pp. 33–41, 2019.

[11] D. D. Warrick, “What leaders need to know about organization culture,” Bus. Horiz., 2017.

[12] I. Shafique, M. N. Kalyar, and B. Ahmad, “The Nexus of Ethical Leadership, Job Performance, and Turnover Intention: The Mediating Role of Job Satisfaction,” Interdiscip. Descr. Complex Syst., vol. 16, no. 1, pp. 71–87, 2018.

[13] E. C. Avila and H. I. Cabrera, “the Use of Facebook Group in Distance Learning During the Time of Covid-19 Pandemic,” PalArch's J. Archaeol. Egypt/ Egypt., vol. 17, no. 6, pp. 1859–1871, 2020.

[14] E. C. Avila and M. K. S. Lavadia, “Investigation of the Acceptability and Effectiveness of Academic Podcasts to College Students ’ Scholastic Performance in Science,” Indian J. Sci. Technol., vol. 12 (34), no. September, pp. 1–8, 2019.

[15] E. C. Avila, A. Maria, and G. J. Genio, “Motivation and Learning Strategies of Education Students in Online Learning during Pandemic Motivation and Learning Strategies of Education Students in Online Learning during Pandemic,” Psychol. Educ., vol. 57, no. 9, pp. 1608–1614, 2020.