



Impact of Employee Adoption as a Moderator between E-Governance and Work Life Balance in Public Sector Organizations of Punjab

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Abstract

Past two decades have witnessed a paradigm shift in the way governments work in serving the public. Electronic Governance (E-governance) took over the humans in much quantum/somewhere even completely. Pakistan is amongst countries incorporating ICT and digitization. ICT are believed to reduce work load and improve employee's work conditions however it's adoption remains a crucial aspect. This study was conducted on public sector organizations to know the relationship between e-government practices and work life balance (hereinafter WLB) with moderating effect of employee adoption. The data was collected from ten public service delivery organizations. Results show a significant relationship between e-government practices and WLB.

Keywords: Public Administration, Work Life Balance, E-Governance, Public Policy, ICT

Introduction

E-governance is nothing but the use of modern ICT technologies at all Government levels for efficient delivery of the services to public (Malodia et al., 2021). Although worldwide this shift took place long ago in the past but still many countries are into the developing stage in this regard. The Nigerian Government failed in high levels of social interactions while using E-governance tools (Nofal et al., 2021). In this technological era, there is huge pressure on Governments to cut the cost for operations and citizens have high expectations from their respective Governments to deliver services on time and in an efficient way (Thach et al., 2021). Smart phones and computers are now portable technological gadgets in every hand these days.

As the number of citizens using gadgets is growing day by day and internet access has become very easy for all common users, the citizens who were previously just passive customers of Government services have now become active customers and are well aware of Government activities (Ngari, 2021). E-governance comprises of ICT that encourages citizens to participate in decisions made by the Government and also increases the transparency of the Government activities (Sofyani et al., 2020). E-governance is basically an electronic governance that aims to make the governance effective by using ICT. E-governance is broader concept than E-government

and the main objective of this type of governance is to engage with and empower the citizens (Tejedo-Romero et al., 2022). E-governance has offered a better and two way communications between the government and its citizens. On the basis of Government interaction with external stakeholders, E-governance has three categories which are, government to business, government to citizens and government to government (Saleh & Alyaseen, 2021). ICT and E-governance are now considered necessary to be adopted (Anjum & Rehman).

The adoption is the readiness to accept the change in work system. Adoption and acceptance would largely depend upon the employees or user's intent to use and the environment provided thereof. Nevertheless it shall broadly be focused on expectance to at what level it will increase the performance and how much effort will be required therein (Li, 2021). Expectations to enhanced performance are simply the perceived levels to which an output of employee can increase. On the other hand, the expectations to effort are the extents to which an employee shall be eased off towards workload.

Performance expectancy is a level to which an employee believes that by using internet and other ICT technologies, his/ her performance shall be improved (Fedorko et al., 2021). Effort expectancy is the level to which an employee thinks that his/ her job will become easier by using modern technologies to deliver timely services in an efficient way (Alblooshi & Abdul Hamid, 2022). Due to higher effort expectancy and performance expectancy, the trend to use ICT's has increased in Governmental organizations. The major challenges regarding acceptance and adoption of ICT is lack of IT literacy and knowledge among employees working in government organizations. It is due to this reason that while working in manual system, employees face a lot of issue to shift towards ICT for doing the same job (Hodder, 2020). In this regard a comprehensive change adoption system is necessary which can educate employees to adopt the new technology. It is very important to impart proper training to employees before implementation of ICT to increase their acceptance and readiness to use IT (Rachmawati et al., 2021).

When it comes to WLB, it is the balance that someone may be able to achieve between his/ her work and personal lives (Brough et al., 2020). Simply put together, when an individual is able to manage the resources both at work and personal life part in way that one segment does not hamper the other. As the work and personal life are two different portions of one's life and in today's work and life environment it is quite possible that they interfere with each other. As long as demands put over by both segments does not affect an individual, he/ she retains the balanced state (Anjum et al., 2021). Organizations perform better with innovative leadership styles and looking after employees has a key role in it (Quadri et al., 2024). Mere financial benefits will not cater for achieving balance in a longer run and measures are needed to be devised allowing employees to achieve WLB. Organizations with better employee engagement are considering WLB polices as integral part of human resource management (Luturlean et al., 2020).

E-governance can serve its best when it is coupled with technical competence of its end users. The organizations that use ICT for their operations need trained personnel who can use the modern technology in a better way (Collin et al., 2021). The term adoption is normally found in the context of human resource, where employees have to adopt new techniques according to the changing environment, culture and technology of the organization. Adoption of these technologies is very important for the successful implementation of e-governance models (Puppala et al., 2023). Researches explain that the adoption of technology is an important factor when it comes to public sector employees and organizational support, training and awareness plays a key role in the adoption of the technologies.

Use of ICT is likely to help employees in achieving their goals in an efficient way and can lead to improved employee WLB. The state of WLB of an employee can decide the success or failure of any organization (Rodríguez-Sánchez et al., 2020). So it is very important that the employee achieves WLB in his/ her job. In terms of employee, the support of the organization plays a very vital role when it comes to uncertainty during any change that occurs in an organization. This change could be cultural, financial or technological and may require interaction with new systems. How the company supports its employees directly impacts how satisfied the employee is with the job, and it will ultimately affect his/ her job performance (Althammer et al., 2021). This study tends to investigate the impacts of e-governance on the WLB of the employees in context of their adoptability towards e-governance practices being followed by public sector organizations in the province of Punjab.

Research Objectives

- To identify the relationship between e-governance practices and WLB of the employees working in public sector organizations.
- To find out whether e-governance practices are responsible for change in WLB of the employees.
- To determine that employee adoption strengthens or gives direction to the relationship of e-governance practices and WLB of the employees.
- To trace the extent of success of e-governance practices in Pakistan.
- To find out the factors responsible for the successful adoption of E-Governance practices in Pakistan.
- To highlight the challenges to the adoption of e-governance practices in Pakistan.

Significance of the Study

Technological bursts are happening every day and countries worldwide are using these to make lives faster (Wajcman, 2020). Whether developing or underdeveloped, a country denying technological use is unlikely to cope up with rest of the world. Pakistan joined this race well back two decades ago by establishing its first ever computer based data system name as NADRA but could not cope with demands of E-governance models. One of the major causes this were a lack of research in this area. E-governance on one hand can increase the ease of doing the routine work and on the other hand it can pose severe challenges to the employees regarding their adoptability towards the change (Higgins et al., 2021). If employees are provided with a conducive environment and the adoptability towards any change is properly managed, it can lead to an increase in level of WLB of employees. This study shall help governmental agencies to improve upon their human resource practices regarding their e-governance projects. It can also help to provide a framework for explaining how e-governance has impacted the job WLB of employees working in public sector organizations.

While highlighting the impacts, this study will also tend to provide insights on the process of change management in the selected public sector organizations. This research will also give way to future inquiry for finding out new ways to carry out such projects. In previous researches the focus was merely on impact of E-governance on employee WLB but ignored the moderating role of adoption/ acceptance by the employees. The findings of this study will be healthy contribution to endorse that employees' adoptability of E-governance system is necessary by giving them

proper training and education regarding ICT usage to enhance the employee WLB regarding E-governance.

Literature Review

Past few decades have seen a very fast technological advancement with no restriction to any field. Change is only constant in this world happening around the globe each passing day (Schiller & Crugnola-Humbert, 2022). Pakistan took over its share from the technological advents and initiated E-governance practices. Past two decades a number of E-governance projects were started in Pakistan (Atique et al., 2024). E-governance models transformed the overall structure of public service delivery in the state. Since its adoption and its progress under the political interests, a lot of research has been done on E-governance as a models of public service delivery in Pakistan (Khan et al., 2020). Although the literature covers a variety of impressions regarding the E-governance models, this literature review will cover the themes relating to the impacts of E-governance practices on the WLB of the employees along with a moderating role of employee's adoption to such practices. The significant variables of our literature will cover the E-governance, adoption and WLB.

E-Governance

World Bank defined governance as a way state exercises its power and in doing so it utilizes its institutions. In simple words the governance is explained as formulating policies and implementing these with available assets (Kjaer, 2023). When we discuss the effectiveness of governance, it is seen that all stakeholders are incorporated in it. E-governance is an ongoing process and shall be able to accept developments from its beginning till the end (Arkadievich, 2022). It involves mutual working between the state, citizens and its businesses. It also plays a very important role in internal functioning of government bureaus. The major determination of E-governance is to make procedures easier and simpler and ensure improvements in various aspects of governance, (Li & Shang, 2020). In E-governance the governments make use of ICT and technology for provision of services to its citizens. The expectations by the citizens are also increased since E-governance practices shall reduce physical involvement and human interference which usually is personality based behaviors (Chen & Aklikokou, 2020).

E-governance and use of information technology in government services is to create a procedure which is effective in working, speedy in response and transparent in results. This process is intended to make information available to the public and other attached departments and to carry out administrative functions. Muradov (2022) concludes that administrative functions today are not possible without E-governance. Through e-governance and information technology and internet, the government services are being delivered to the citizens, related businesses, and other government agencies in more efficient and effective manner. This method of delivering government services create a direct relationship between citizens and the state (Alkrajji & Ameen, 2022). It is comparatively more transparent and easier for the citizens. E-governance enables its end users to interact with and use services by the government at different levels and it leads to a developed social makeup and responsible citizens (Rahman et al., 2023). Nevertheless, E-governance does not only provide opportunities for good and easy governance but brings along certain challenges.

E-governance is a vast spread use of ICT providing citizens an easy access to government in daily affairs avoiding physical travel and interaction as well as waiting in long queues. To this end almost every developed country has a principal digital application which can navigate to desired portals. Individual departments' portal without data integration has long been left behind to avoid

multiple data bases (Gomathy et al., 2021). Pakistan has also stepped into the field of E-governance however each department is using their own database. Wherein one service is based on clearances from multiple agencies non synchronous database poses delays (Geneiatakis et al., 2020). In the context of Pakistan, it is considered to be one of the basic issues of delayed e-governance practices. Synchronization of database is key to success of E-governance practices (Younus et al., 2023). Absher portal in Kingdom of Saudi Arabia and its digital application are one of the examples to offer one of the best E-governance platforms (Binsaif et al., 2024).

Scope of E-Governance

Governments around the globe understand that use of computers alone cannot lead towards better governance but a thoroughly planned and executed E-governance system is deemed inevitable in today's fast paced world (Chhura et al., 2021). Time is precious and it cannot be wasted in physical interactions for those tasks which can be easily carried out remotely. Transparency is great concern for governments while serving its citizens and it bears huge chances for the lack of transparency wherein human interaction exists. E-governance models offer enhances opportunities to avoid risk of non-transparent practices with almost zero human interventions (Salam & Kumar, 2021). In a country like Pakistan where there is a huge populous, government to people interaction is barely manageable in physical terms. E-governance systems are likely to provide better interaction between government and its citizens (Amutha, 2022).

E-governance means to transform all traditional administrative businesses and services (extended procedures using paper) into electronic businesses and services that are performed quickly and accurately using management techniques most often called as paperless management (Gelashvili & Pappel, 2021). E-government deals with the more inclusive and better integrated structure of the electronic applications in the administrative areas at all levels during the administrative processes. Management operations at almost all levels are performed electronically in E-governance models (Ullah et al., 2021). Up gradation of government is not only a transformation to provide services merely via internet rather it encompasses provision of services more effectively and efficiently. This is likely to lead towards curb in corrupt practices with more transparency along with ease to access services and reasonably reduced governance costs (Sadik-Zada et al., 2024).

E-governance and WLB

E-governance involves use of ICT with least to no personal interaction. Procedures are articulated through a set pattern and systems. It is likely that due to this no to least levels of personal interaction between the public servants and public there shall be more comfort or improved quality of life of public servant (Durga & Rajendran). Quality of life is generally related to the environment in which an individual is asked to work and how it impacts his/ her personal life standards. It shall not only revolve around hefty pay packages but an overall working atmosphere of the organization, working load and time available to do the tasks. It shall also provide an equal opportunity to look after the personal life segment of an individual. Avenue to achieve balance and actual achievement of this balance between both roles is referred to as WLB (Navajas-Romero et al., 2020). With E-governance practices it is considered that the employees see better opportunities in achieving this balance (Alsharaa, 2020).

It is obvious that working with ICT based system reduce the mental strain as well human calculations. This in turn reduces the work load on the employees as most of the work is done away by the pre designed systems. Quality of E-governance system and its trained use sheds away the work stress from employees (Pérez-Morote et al., 2020). As a result, the less strained

employees are able to acquire well-being and remain mentally and physically healthy. ICT based systems provide leverage to operate independently and without much of the physical supervision. Working in an environment where there is less direct supervision offers relaxed working environment and one can utilize his/ her abilities to the maximum (Fischer et al., 2021). Bad supervision or abusive supervision may put upon higher levels of strain on employees which they take along in personal segment of their life. These employees are likely to lose WLB and thereby become low in productivity.

As the E-governance models incorporate use of ICT, it offers better avenues for working remotely. Internet access and digital software based work procedures may allow remote transactions. This provides an opportunity to employees in handling multiple roles of their life that are typically work and life role (Azevedo et al., 2020). It is at times very difficult or impossible for an individual to manage his appearance at both, personal life and work life to meet the demands of both roles. E-governance is the solution to this wherein an employee may be asked to work off desk and carryout his/ her functions more efficiently (Pautz & Vogel, 2022). As a result, better motivated public service employees are available for public service delivery. Contrary to this thought, in Pakistan this is not aimed at reducing work related stress on employees and E-governance will be of no use if not commissioned wisely (Ullah et al., 2021). Literature however suggests that E-governance shall likely improve upon the WLB state of employees and increase their quality of life.

Organizational/ Employee Adoption

Organizational adoption may be defined as a capacity of an organization's capacity to commit to change and adjust its environment as per the change being incepted (Allen et al., 2017). Adoption is not merely a sudden incident during the change process in an organization but it remains an ongoing process throughout the organization functions (Ukobitz, 2021). In other words, it can be said that this is a continuous process during the personal and organization's improvement in its operational life. In turn this continuity enables the personnel and organization to adopt the changes being implemented (Jöhnk et al., 2021).

Studies conducted to know the impact of implementing technological advancements on the nature of work environment show that it also changes the environment of organizations as well as the employees (Hanelt et al., 2021). Here it is pertinent to mention that may it be public or private enterprise/ organization, the training of employees to adopt these changes are of utmost importance. These advancements are required to be aligned with the personnel so that the effectiveness of system is ensured. In the same context studies also suggest that this alignment of system and personnel is important for enhancing/ ensuring the performance of the organization (Vrontis et al., 2023). It helps the employees in multiple ways and ease them out in work load but if not adopted properly may also result in a fatigue and reduced performance. At occasions this IT may replace the human beings thereby creating a sense of fear of losing jobs but if adopted well, may bring the humans to backend with reduced workload without major downsizing involved. IT implementation therefore is required to be aligned with the overall Human Resource Policy of the organization starting from inception till its implementation (Prasad Agrawal, 2024).

E-government demands adoption by employees before implementation and to cater for other factors so as to fit it in wholesome manner. Therefore, the subject remains an ongoing concern for the organizations striving to keep their performance level high as well as to remain sustainable. In the public sector however it may be very difficult for the government to involve the employees for adoption of E-government practices and therefore it is still a big challenge (Inakefe et al., 2023). To this end the alignment of beliefs and behaviors may prove useful along with other confidence

building measures since public sector jobs are mostly permanent in nature with pre recruitment qualifications which are stagnant in most of the cases (Dharmasivam & Shanmugam, 2024).

Conceptual Framework

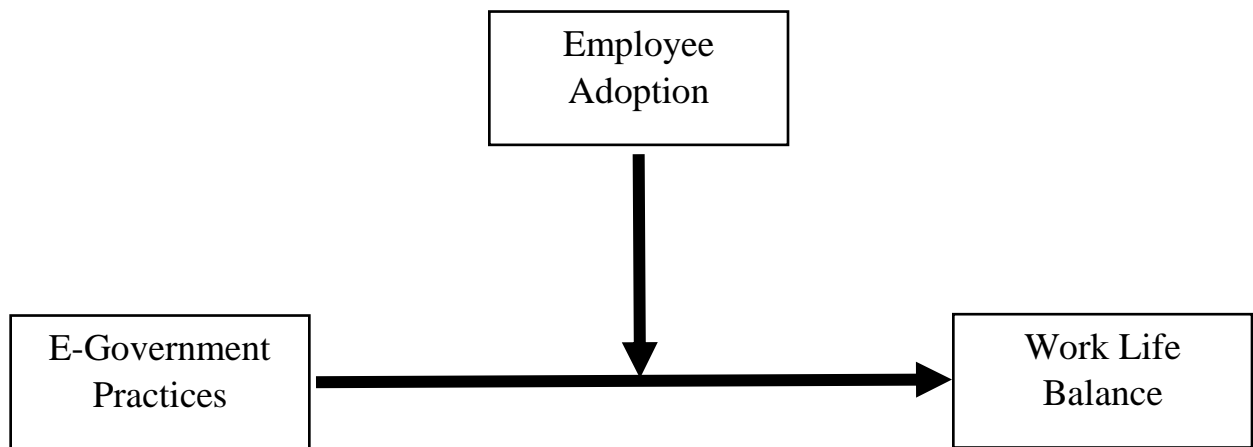


Figure-1 Conceptual Framework

Research Questions

Through the literature review and its in depth analysis following research questions emerge which this study shall endeavor to answer:

- What is the relationship between e-governance practices and WLB of the employees working in public sector organizations?
- What is the extent of success of E-governance in Pakistan?
- What are the external and internal factors responsible for the successful adoption of E-governance?
- What are the challenges to the adoption of E-governance?

Research Hypothesis

H1: There will be significant prediction of WLB of employees by E governance.

H0: There will be no significant prediction of WLB of employees by E governance.

H2: E-governance practices have a significant positive relationship with WLB of employees.

H0: E-governance practices do not have a significant positive relationship with WLB of employees.

H3: The relationship between e-governance practices and WLB is moderated by employee adoption.

H0: The relationship between e-governance practices and WLB is not moderated by employee adoption.

Research Methodology

Research Strategy

The research strategy that has been used is quantitative. The quantitative research strategy leads to more objective findings due to the quantification of data collected (Rahman et al., 2022). In view of Kittur (2023), quantitative research strategy is best suited for those studies which involve hypotheses and theory that provides support to the variables. Moreover, the quantitative research strategy is useful for testing hypotheses on a larger population and due to this reason the research findings are more generalizable (Bryman, 2016). It also helps in identification and trends in the data at analysis stage. Keeping in view the bigger population for this study from a diverse organizational background, above rationale is taken to employ quantitative research strategy for this study.

Research Design

Every research aims at answering research questions and to this end data collection is the key step however, employing appropriate research design leads to data collected in a way to seek insights into the collected data (Pesämaa et al., 2021). Cross-sectional survey design is employed to study the relation between our three variables e-governance, employee adoption and WLB. The defining feature of a cross-sectional study is that it can compare different population groups at a single point in time. This research design is suitable to make certain inferences about data collected. The benefit of a cross-sectional study design is that it allows researchers to compare different variables at the same time along with demographical data. We could, for example, look at age, gender, income and educational level in relation to the main variables of the study. Cross-sectional survey provides the snapshots of the populations about which the data is collected.

Population

Population is the pool of units of study from which the sample is drawn. Researchers often use accessible population or target population. It is a complete set of fundamentals having the same representativeness that are explained through the standards which are developed by a scholar. For this research, the population constitutes public sector organizations of Punjab province and one from federation. Only those organizations are selected that have incorporated e-governance practices in their routine matters. Organizations that are targeted as population for this study are NADRA, Punjab safe city authority, Punjab information and technology board (PITB), Punjab board of technical education (PBTE), Punjab land records authority, CCPO, AG office, Khidmat Markaz, HCBF IT center and Walton CB. Data was gathered from both males and females, as a mean to satisfy the goals of the study.

Sampling

It is the mechanism to choose the candidates, occasions, or the behavior of a human which are used to conduct a study by the researcher. Convenience sampling is done for the collection of data with non-probability sampling technique. Convenience sampling was used so that the aimed population who are matching the definite standards are easily available, accessible and have fully agreed to contribute to the study. It is the type of non-probability sampling where the persons of aimed population who are matching the definite standards or can be easily available or have fully agreed to contribute for the study. It is assumed that population that are selected is neutral. Data are usually organic in convenience sampling. It is also referred as “Haphazard or Accidental Sampling” (Etikan et al., 2016).

Data Collection

For the collection of quantitative data, around 712 research participants were accessed out of which 710 responses were obtained resulting in a response rate of 99%. Both managerial and Non-managerial staff constituted the sample of research participants for quantitative data collection.

Method of Data Collection

It is the procedure of assembling and measuring data on selected variables in an accepted methodical fashion, which allows respondent to answer questions and assess outcomes. Questionnaire comprised of 50 items with closed ended questions on a five-point Likert scale (strongly agree to strongly disagree). Closed ended questions accommodate the respondents to choose answers from the given options without wasting time. In order to gain better participation of respondents, the research purpose and its significance briefed to them through a cover letter with the questionnaire. This not only decreased the hesitation of respondents but also helped to clear the ambiguities. A cover letter was constructed and attached with each questionnaire that aimed to communicate the research topic, its significance while ensuring the anonymity of respondents. Furthermore, the names of respondent were not asked to protect the identity of respondent. The next section of the questionnaire tapped the information about the variables in a sequential manner so as to facilitate the respondent to focus on one dimension at one time. Last page of the questionnaire consisted of demographics. The rationale of putting demographics at the end was to put the respondents at ease in giving the same.

Measuring Variables

For the purpose of survey questionnaire already developed instrument was used. The instrument used in our study was to use publicly. The e-governance is measured by DeLeon and McLean information system success model applied lately in a study by (Nkanata, 2019). It is a set of 23 items comprising of six dimensions. First three items measure systems quality. For the measurement of information quality and service quality 5 items each are used. 4 items are used to gauge the intent of use. And 3 items each are used to study user satisfaction and net benefits. Employee adoption is measured using the technology acceptance model developed by (Davis et al., 1989). WLB scale was adopted from the scale comprising 8 items developed and tested by (Kopelman et al., 1983).

Demographic Variables

For the variables which were studied to fulfill the objectives of the study, a total of 5 questions were structured to collect the data from respondents with respect to demographic characteristics. Information about the following demographics factors; organization, gender of respondent, tenure of the service, age and income of the employees was collected. Gender of respondent was measured by giving response categories 0= Male and 1= female. Age was measured by providing five categories ranging from 1 to 5. Tenure of services had following categories; 1= less than one year, 2= 1-5 years, 3= 6-10 years, 4= 11-15 years, 5= 16 and above. In questionnaire, there were total 50 questions, including 5 demographics question and others structured questions called close-ended questions. The questionnaire had all the closed ended questions with very well-defined response categories ranging “1” strongly disagree to “5” strongly agree.

Data Analysis

Missing Values

Each and every questionnaire was duly checked for incompleteness due to unwillingness of respondent to answer a particular question or overlooked unintentionally. Fortunately, there were only few questionnaires having few incomplete questions. According to the general rule of thumb,

about 10 percent missing data for an individual case or observation can generally be ignored. But in order to complete the dataset, all the missing values or unanswered questions were replaced with average mean values through SPSS.

Data Processing

The analysis and processing of data was completed by using IBM SPSS (Statistical Package of Social Sciences). The data during the process was collected from public organizations using a questionnaire consisting of 50 items. A total number of 710 responders were recorded by the help of convenience sampling.

Results

Gender

The gender was coded as 0 and 1 in the SPSS labeled as 0 = Male and 1 for Female. The results for the demographic were derived from descriptive testing model. Out of 712 questionnaires 710 responded i.e. 71.3% were Male and rest respondents (28.7%) were females. This also shows that in public sector organizations the female representation is less than males.

Work Tenure of the Respondents



Figure-2 Work Tenure of Respondents

The details of work tenure of the employees in the respective organizations is summarized in the above figure. There were five categories in which the work tenure was divided ranging from 1 to 5 starting from less than 1 year to 16 and above work experience. The figure depicts that the majority of the employee from which data is gathered belongs to the category 2 that is of 1-5 years of work tenure. About 50.1% of data is gathered is collected from this category and then 25.9% of data is collected from the category 3 that is of employees who fall in the 6-10, years tenure.

Selected Organizations

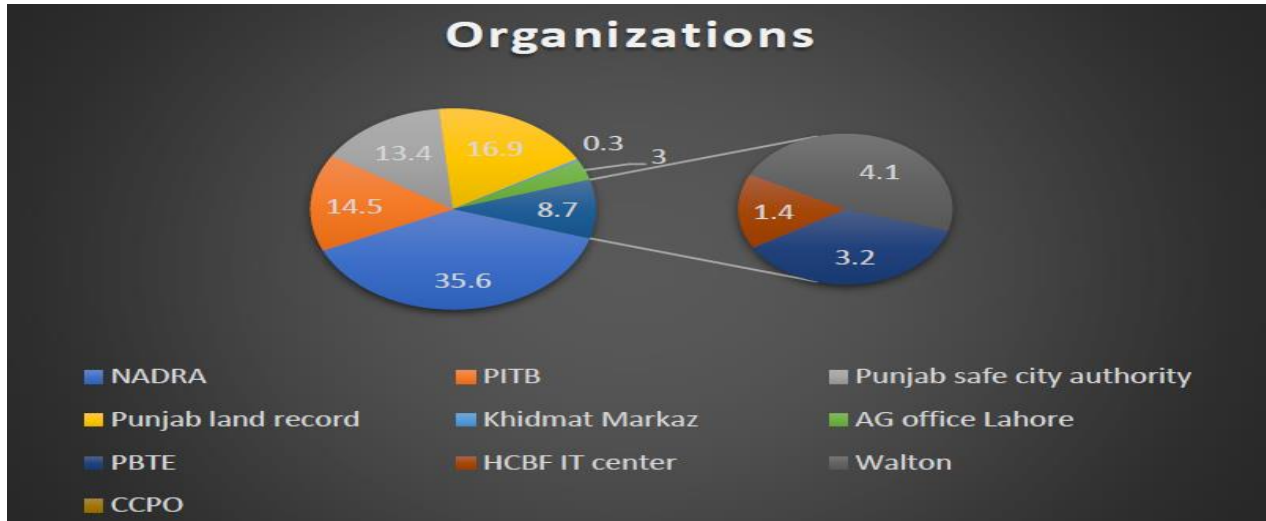


Figure-3 Organizations

This research is done on the public sector organizations of Punjab province except NADRA which is a federal organization. A total of ten organizations were selected on the basis of a specified criteria of selection i.e. organizations that have incorporated e- governance practices in their routine matters were part of this study. Above figure provides the complete summary of the organizations selected. With reference to the data shown in the figure, 35% of the respondents were only from NADRA, 16% from Punjab land record and 14% from Punjab information and technology board (PITB).

Reliability of the Instrument and Construct

Table-1 (Overall Reliability)

| Cronbach's Alpha | N Item | Interpretation |
|------------------|--------|-----------------------|
| 0.947 | 50 | Excellent Reliability |

Reliability of Subscales

Table-2 (Individual Reliability)

| Subscales | Cronbach's Alpha | N of Items | Interpretation |
|-------------------|------------------|------------|-----------------------|
| E-governance | .949 | 23 | Excellent reliability |
| Employee adoption | .887 | 19 | Good |
| Work Life Balance | .885 | 8 | Good |

The excellence of the measure was assessed through reliability. The value of Cronbach alpha differs from 0 to 1. Overall reliability of the scale was 0.947 which is excellent and the subscales reliability was ($\alpha=.949$) for e-governance practices which represents excellent reliability, ($\alpha=.887$) for employee adoption which represents good reliability and ($\alpha=.885$) for WLB which shows good reliability. George and Mallery (2019) rule of analyzing reliability statistics was observed for the output analysis.

<.5(unacceptable), >.5(poor). >.6(questionable). >.7(acceptable), >.8(good), >.9(excellent).

Normality of Dataset

Table-3 (Normality)

| Items | Total EG | Total EA | Total WLB |
|------------------------|----------|----------|-----------|
| N Valid | 710 | 710 | 710 |
| N Missing | 0 | 0 | 0 |
| Skewness | -.166 | -.239 | -.592 |
| Std. Error of Skewness | .092 | .092 | .092 |
| Kurtosis | -.004 | .218 | .959 |
| Std. Error of Kurtosis | .183 | .183 | .183 |

For normal distribution of data set the values of skewness should be in between +0.5 and -0.5 and for kurtosis the given range is between +2 and -2. As per the analyst's sample size equals to 30 or not less than 40 is considered to be a big sample size. Also indicated by central limit theorem, as the sample size expands regardless of the population the sample size has tendency to be normally distributed around the mean. In our research the response rate was quite large i.e. 710; it can be considered as normal based on the above-mentioned assumptions.

Regression Analysis and Model Summary

H0: there will be no significant prediction of WLB by e-governance

H1: there will be significant prediction of WLB by e-governance

Table-4 (Regression Analysis)

| Model | Coefficients ^a | | | | | | |
|------------|-----------------------------|-------------------|---------------------------|-------|------|-------------------------|------------|
| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
| | <u>B</u> | <u>Std. Error</u> | <u>Beta</u> | | | <u>Tolerance</u> | <u>VIF</u> |
| (Constant) | .789 | .151 | | 5.211 | .000 | | |
| 1 Total EG | .429 | .047 | .370 | 9.151 | .000 | .564 | 1.773 |
| Total EA | .331 | .049 | .275 | 6.793 | .000 | .564 | 1.773 |

a. Dependent Variable: Total WLB

Table-5 (Model Summary)

Model Summary

| Model | R | R Square Change | Change Statistics | | | | Sig. F Change | Durbin Watson |
|-------|-------------------|-------------------|-------------------|-----|-----|------|---------------|---------------|
| | | | F Change | df1 | df2 | | | |
| 1 | .589 ^a | .347 ^a | 187.908 | 2 | 707 | .000 | 1.693 | |

a. Predictors: (Constant), Total EA, Total EG

The above table presents the model summary of regression analysis of e-governance predicting WLB. The sign of a regression coefficient shows weather there is a positive or negative relationship that exists in independent and dependent variable. The value of R represents the beta coefficients that is measure of quality of prediction of the dependent variable while R2 describes the coefficient of determination. In our study the value of R=.589 and value of R2=.347 which means that 34.7% variation in the dependent variable (WLB) is caused by the independent variable (e-governance). The Durbin Watson value ranges from 0-4. In our study this value is 1.693 that indicated that there is no serial correlation in the data. From the above statistics available we interpret that a linear relationship exists between the dependent and independent variable as that means one-unit change in the independent variable will cause a variation in the dependent variable. So, the null hypothesis is rejected as there is a non-zero correlation exists between the two variables.

Correlation Analysis

H2: E-governance practices have a significant positive relationship with WLB of employees.

H0: E-governance practices do not have a significant positive relationship with WLB of employees

H3: The relationship between e-governance practices and WLB is moderated by employee adoption

H0: The relationship between e-governance practices and WLB is not moderated by employee adoption

Table-6 (Correlation)

| Items | | Total EG | Total EA | Total WLB |
|-----------|---------------------|----------|----------|-----------|
| Total EG | Pearson Correlation | 1 | .660** | .552** |
| | Sig. (2-tailed) | | .000 | .000 |
| | N | 710 | 710 | 710 |
| Total EA | Pearson Correlation | .660** | 1 | .519** |
| | Sig. (2-tailed) | .000 | | .000 |
| | N | 710 | 710 | 710 |
| Total WLB | Pearson Correlation | .552** | .519** | 1 |
| | Sig. (2-tailed) | .000 | .000 | |
| | N | 710 | 710 | 710 |

***. Correlation is significant at the 0.01 level (2-tailed)*

The Pearson r correlation shows, if there is any relationship between two or more variables. Its value must lie between -1 and +1. The findings show that there is a significant relationship between E-Governance and WLB of employees with corresponding significance value $p=.000$, ($p<0.05$) hence, rejecting the null hypothesis. Therefore, the findings suggest that E-governance practices are positively related to WLB of employees i.e. increase in one variable will cause an increase in the other variable and vice versa. The Pearson r correlation between e-governance and WLB ($r=0.552$) shows a strong relationship between both variables. The relation between E-governance and Employee adoption has a value ($r=0.660$) indicating a strong positive relation between them. As far as Employee adoption and WLB is concerned ($r=0.519$) also depicts a positive relation between these variables.

Moderation Analysis

Model

Y: Total WLB

X: Total e-governance

W: total employee adoption

Table-7 (Model Moderation Analysis)

Model Summary

| R | R-Sq | MSE | F | df1 | df2 | p |
|-------|-------|-------|---------|--------|----------|-------|
| .4347 | .1781 | .4972 | 56.7947 | 3.0000 | 606.0000 | .0000 |

Table-8 (Constructs' Moderation Analysis)

Model

| Items | coeff | se | t | p | LLCI | ULCI |
|----------|--------|-------|---------|-------|--------|--------|
| constant | .1499 | .2525 | .5939 | .4628 | -.3459 | .6458 |
| TEA | .2538 | .0816 | 3.1107 | .0040 | .0936 | .4141 |
| TEG | .6396 | .1183 | 5.4052 | .0000 | .4072 | .8720 |
| Int_1 | -.1406 | .0358 | -2.9178 | .0007 | -.1749 | -.0342 |

Discussion

The study was conducted in public sector organization of region Punjab in order to determine if there is any relationship that exists between the variables e- governance and WLB moderated by employee adoption. For this purpose, a cross sectional survey was conducted with a pre-designed questionnaire to fulfill the aim and objectives of the study.

Impact of the variables (e-governance and employee WLB)

Most of the literature on the e-governance is studied in relation to overall organizational performance or job performance and less evidence is available for employee's WLB. This indicates that a gap in the literature exists that needs to be studied. In the study conducted, the statement that there is prediction of employee WLB by e-governance is accepted and supported by the evidence. As the value of $p=.000 < .005$ and value of $R^2=.347$ that shows a significant relation and interprets that predictor (e-governance) is causing a variation of 34.7% in dependent variable (WLB). The value of prediction is however, signifying a weak relation.

Relationship between the variables (e-governance practices, employee WLB and employee adoption)

Through quantitative analysis it is proved from the findings that there is a significant relationship between E-Governance and WLB of employees with corresponding significance value $p=.000$, ($p<.05$). The Pearson r correlation between e-governance and WLB ($r=0.552$) shows a strong relationship between both variables. The relation between E-governance and Employee adoption has a value ($r=0.660$) indicating a strong positive relation between them. As far as Employee adoption and WLB is concerned ($r=0.519$) also depicts a positive relation between these variables.

Relationship between the variables (e-governance and moderating variable; Employee Adoption)

The relationship between e-governance practices and WLB is not moderated by employee adoption as the value of interaction effect shows a significant relationship but negative. That means the moderating variable (employee adoption) is negatively influencing the predictor. As discussed earlier, one of the reasons for employees not ready to adopt is the resistance to change. Public sector jobs are mostly permanent in nature with an orthodox way of working involving human input in most of the systems. If automated, it is going to reduce the number of people in chain and that shall impact the jobs. This poses a challenge to the innovation of digitization in governance system.

Conclusion

Change is always resisted and when it comes to digitization, the general concept is that ICT replacing humans. It therefore inculcates a sense of fear of losing job in one way or the other. To implement ICT in true spirit, it is necessary that prior training of employees is carried out and if needed to be replaced, they must be accommodated elsewhere. However, future recruitments may be made as per the new demands and qualifications required thereof should be kept in as a criterion. Moreover, ICT and digitization would only be useful if data interface is provided to every organization.

References

- Alblooshi, S., & Abdul Hamid, N. (2022). The effect of performance expectancy on actual use of e-learning throughout the mediation role of behaviour intention. *Journal of e-Learning and Higher Education*, 628490.
- Alkrajji, A., & Ameen, N. (2022). The impact of service quality, trust and satisfaction on young citizen loyalty towards government e-services. *Information Technology & People*, 35(4), 1239-1270.
- Allen, J. D., Towne, S. D., Maxwell, A. E., DiMartino, L., Leyva, B., Bowen, D. J.,... Weiner, B. J. (2017). Measures of organizational characteristics associated with adoption and/or implementation of innovations: a systematic review. *BMC health services research*, 17, 1-10.
- Alsharaa, M. (2020). The effect of e-governance on job satisfaction and organizational commitment in Libyan commercial banks.
- Althammer, S. E., Reis, D., van der Beek, S., Beck, L., & Michel, A. (2021). A mindfulness intervention promoting work–life balance: How segmentation preference affects changes in detachment, well-being, and work–life balance. *Journal of Occupational and Organizational Psychology*, 94(2), 282-308.
- Amutha, D. (2022). Promoting e-Governance through Rural Development. Available at SSRN 4039779.
- Anjum, M., Khan, H., & Gul, N. (2021). Impact of Work-Life Balance on Performance of Police in.
- Anjum, M. R., & Rehman, A. PUBLIC PERCEPTION ABOUT POLICING IN PUNJAB AFTER THE INCORPORATION OF ICT.

- Arkadievich, D. N. (2022). Transformation of E-Government and E-Governance in the Digital Economics. *Legal Issues in the digital Age*(4), 67-87.
- Atique, M., Htay, S. S., Mumtaz, M., Khan, N. U., & Altalbe, A. (2024). An analysis of E-governance in Pakistan from the lens of the Chinese governance model. *Heliyon*, 10(5).
- Azevedo, L., Shi, W., Medina, P. S., & Bagwell, M. T. (2020). Examining junior faculty work-life balance in public affairs programs in the United States. *Journal of Public Affairs Education*, 26(4), 416-436.
- Binsaif, N. H., Nagro, S. A., Aldekhail, M. S., & Adam, F. (2024). Investigation on e-government initiatives in Saudi Arabia based on coping model of user adaption. *Electronic Government, an International Journal*, 20(5), 540-556.
- Brough, P., Timms, C., Chan, X. W., Hawkes, A., & Rasmussen, L. (2020). Work–life balance: Definitions, causes, and consequences. *Handbook of socioeconomic determinants of occupational health: From macro-level to micro-level evidence*, 473-487.
- Bryman, A. (2016). *Social research methods*. Oxford university press.
- Chen, L., & Aklikokou, A. K. (2020). Determinants of E-government adoption: testing the mediating effects of perceived usefulness and perceived ease of use. *International Journal of Public Administration*, 43(10), 850-865.
- Chhura, B., Marshal, P., & Agarwal, R. (2021). Expanding Horizon Of E-Governance In India And Its Policy Implication. *PSYCHOLOGY AND EDUCATION*, 58(1), 3352-3358.
- Collin, K. M., Keronen, S., Lemmetty, S., Auvinen, T., & Riivari, E. (2021). Self-organised structures in the field of ICT: Challenges for employees' workplace learning. *Journal of Workplace Learning*, 33(2), 95-108.
- Davis, F. D., Bagozzi, R., & Warshaw, P. (1989). Technology acceptance model. *J Manag Sci*, 35(8), 982-1003.
- Dharmasivam, V., & Shanmugam, V. (2024). Scope for futuristic artificial intelligence innovations towards e-governance adoption. AIP Conference Proceedings,
- Durga, K., & Rajendran, G. A STUDY ON E-GOVERNANCE INFLUENCES ON THE QUALITY OF WORK LIFE (QWL) OF EMPLOYEES WITH SPECIAL REFERENCE TO LOCAL BODIES OF NAGAPATTINAM DISTRICT.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics*, 5(1), 1-4.
- Fedorko, I., Bačik, R., & Gavurova, B. (2021). Effort expectancy and social influence factors as main determinants of performance expectancy using electronic banking. *Banks and Bank Systems*, 16(2), 27.
- Fischer, T., Tian, A. W., Lee, A., & Hughes, D. J. (2021). Abusive supervision: A systematic review and fundamental rethink. *The Leadership Quarterly*, 32(6), 101540.
- Gelashvili, T., & Pappel, I. (2021). Challenges of transition to paperless management: Readiness of incorporating AI in decision-making processes. 2021 Eighth International Conference on eDemocracy & eGovernment (ICEDEG),
- Geneiatakis, D., Soupionis, Y., Steri, G., Kounelis, I., Neisse, R., & Nai-Fovino, I. (2020). Blockchain performance analysis for supporting cross-border E-government services. *IEEE Transactions on Engineering Management*, 67(4), 1310-1322.
- George, D., & Mallery, P. (2019). *IBM SPSS statistics 26 step by step: A simple guide and reference*. Routledge.
- Gomathy, D. C., TEJA, A. S., KANTA, C. M., & MAHESH, C. V. (2021). THE INTEGRATING E-GOVERNANCE WITH BIG DATA ANALYTICS USING APACHE SPARK. *International Research Journal of Engineering and Technology (IRJET)*, 8(10), 2395-0056.

- Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of management studies*, 58(5), 1159-1197.
- Higgins, V., Allan, C., Bryant, M., Leith, P., Cockfield, G., & Cooke, P. (2021). Understanding adoptability of techniques and practices for.
- Hodder, A. (2020). New Technology, Work and Employment in the era of COVID-19: reflecting on legacies of research. *New technology, work and employment*, 35(3), 262-275.
- Inakefe, G. I., Bassey, V. U., Ikeanyibe, O. M., Nwagboso, C. I., Agbor, U. I., Ebegbulem, J.,...Ike, G. U. (2023). Digital Literacy and E-Governance Adoption for Service Delivery in Cross River State Civil Service. *International Journal of Electronic Government Research (IJEGR)*, 19(1), 1-23.
- Jöhnk, J., Weißert, M., & Wyrteki, K. (2021). Ready or not, AI comes—an interview study of organizational AI readiness factors. *Business & Information Systems Engineering*, 63(1), 5-20.
- Khan, M. A., Khurram, S., & Zubair, S. S. (2020). Societal e-readiness for e-governance adaptability in Pakistan. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 14(1), 273-299.
- Kittur, J. (2023). Conducting Quantitative Research Study: A Step-by-Step Process. *Journal of Engineering Education Transformations*, 36(4), 100-112.
- Kjaer, A. M. (2023). *Governance*. John Wiley & Sons.
- Kopelman, R. E., Greenhaus, J. H., & Connolly, T. F. (1983). A model of work, family, and interrole conflict: A construct validation study. *Organizational behavior and human performance*, 32(2), 198-215.
- Li, W. (2021). The role of trust and risk in Citizens' E-Government services adoption: A perspective of the extended UTAUT model. *Sustainability*, 13(14), 7671.
- Li, Y., & Shang, H. (2020). Service quality, perceived value, and citizens' continuous-use intention regarding e-government: Empirical evidence from China. *Information & Management*, 57(3), 103197.
- Luturlean, B. S., Witjara, E., Prasetio, A. P., & Adhanissa, S. (2020). Managing human resources management policies in a private hospital and its impact on work-life balance and employee engagement. *JDM (Jurnal Dinamika Manajemen)*, 11(2), 216-227.
- Malodia, S., Dhir, A., Mishra, M., & Bhatti, Z. A. (2021). Future of e-Government: An integrated conceptual framework. *Technological Forecasting and Social Change*, 173, 121102.
- Muradov, İ. (2022). Problems of e-governance in government agencies and their solutions.
- Navajas-Romero, V., Ariza-Montes, A., & Hernández-Perlines, F. (2020). Analyzing the job demands-control-support model in work-life balance: A study among nurses in the European context. *International journal of environmental research and public health*, 17(8), 2847.
- Ngari, E. N. (2021). *Electronic Governance Adoption at Huduma Centers in Nairobi Kenya University of Nairobi*].
- Nkanata, M. G. (2019). Applying DeLone and McLean information systems success model in the evaluation of e-government initiatives: a literature review. Proceedings of 20th Annual IS Conference,
- Nofal, M. I., Al-Adwan, A. S., Yaseen, H., & Alsheikh, G. A. A. (2021). Factors for extending e-government adoption in Jordan. *Periodicals of Engineering and Natural Sciences (PEN)*, 9(2), 471-490.

- Pautz, M. C., & Vogel, M. D. (2022). Investigating faculty motivation and its connection to faculty work-life balance: Engaging public service motivation to explore faculty motivation. In *Work-Life Balance in Higher Education* (pp. 42-62). Routledge.
- Pérez-Morote, R., Pontones-Rosa, C., & Núñez-Chicharro, M. (2020). The effects of e-government evaluation, trust and the digital divide in the levels of e-government use in European countries. *Technological Forecasting and Social Change, 154*, 119973.
- Pesämaa, O., Zwikaël, O., Hair Jr, J., & Huemann, M. (2021). Publishing quantitative papers with rigor and transparency. *International Journal of Project Management, 39*(3), 217-222.
- Prasad Agrawal, K. (2024). Towards adoption of generative AI in organizational settings. *Journal of Computer Information Systems, 64*(5), 636-651.
- Puppala, H., Peddinti, P. R., Tamvada, J. P., Ahuja, J., & Kim, B. (2023). Barriers to the adoption of new technologies in rural areas: The case of unmanned aerial vehicles for precision agriculture in India. *Technology in Society, 74*, 102335.
- Quadri, S. S. A., Anjum, M. R., & Bangash, S. A. (2024). Impact of Leadership Styles on Employee Engagement and Performance in the Public Sector. *Journal of Development and Social Sciences, 5*(4), 343-360.
- Rachmawati, R., Choirunnisa, U., Pambagyo, Z. A., Syarafina, Y. A., & Ghiffari, R. A. (2021). Work from Home and the Use of ICT during the COVID-19 Pandemic in Indonesia and Its Impact on Cities in the Future. *Sustainability, 13*(12), 6760.
- Rahman, M. H., Albaloshi, S. A., & Sarker, A. E. (2023). From e-governance to smart governance: policy lessons for the UAE. In *Global Encyclopedia of Public Administration, Public Policy, and Governance* (pp. 5075-5087). Springer.
- Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abduli, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: a conceptual guidelines with examples. *Seeu Review, 17*(1), 42-51.
- Rodríguez-Sánchez, J.-L., González-Torres, T., Montero-Navarro, A., & Gallego-Losada, R. (2020). Investing time and resources for work–life balance: The effect on talent retention. *International journal of environmental research and public health, 17*(6), 1920.
- Sadik-Zada, E. R., Gatto, A., & Niftiyev, I. (2024). E-government and petty corruption in public sector service delivery. *Technology Analysis & Strategic Management, 36*(12), 3987-4003.
- Salam, S., & Kumar, K. P. (2021). Survey on applications of blockchain in E-governance. *Revista Geintec-Gestao Inovacao E Tecnologias, 11*(4), 3807-3822.
- Saleh, A. A., & Alyaseen, I. F. T. (2021). Successful factors determining the significant relationship between e-governance system and government operational excellence. *Bulletin of Electrical Engineering and Informatics, 10*(6), 3460-3470.
- Schiller, F., & Crugnola-Humbert, J. (2022). The only constant is change: opportunities and challenges for actuaries in a changing world. *European Actuarial Journal, 12*(2), 887-894.
- Sofyani, H., Riyadh, H. A., & Fahlevi, H. (2020). Improving service quality, accountability and transparency of local government: The intervening role of information technology governance. *Cogent Business & Management, 7*(1), 1735690.
- Tejedo-Romero, F., Araujo, J. F. F. E., Tejada, A., & Ramírez, Y. (2022). E-government mechanisms to enhance the participation of citizens and society: Exploratory analysis through the dimension of municipalities. *Technology in Society, 70*, 101978.
- Thach, N. N., Hanh, H. T., Huy, D. T. N., & Vu, Q. N. (2021). technology quality management of the industry 4.0 and cybersecurity risk management on current banking activities in

- emerging markets-the case in Vietnam. *International Journal for Quality Research*, 15(3), 845.
- Ukobitz, D. V. (2021). Organizational adoption of 3D printing technology: a semisystematic literature review. *Journal of Manufacturing Technology Management*, 32(9), 48-74.
- Ullah, A., Pinglu, C., Ullah, S., Abbas, H. S. M., & Khan, S. (2021). The role of e-governance in combating COVID-19 and promoting sustainable development: a comparative study of China and Pakistan. *Chinese Political Science Review*, 6(1), 86-118.
- Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2023). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. *Artificial intelligence and international HRM*, 172-201.
- Wajcman, J. (2020). *Pressed for time: The acceleration of life in digital capitalism*. University of Chicago Press.
- Younus, M., Pribadi, U., Nurmandi, A., & Rahmawati, I. Z. (2023). Comparative analysis of E-Government Development Index: a case study of South Asian countries. *Transforming Government: People, Process and Policy*, 17(4), 552-574.